Abu T. M. Serajuddin, Ph.D.

Curriculum Vitae

(As of May 20, 2019)

Professor of Industrial Pharmacy
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I. Summary

Abu Serajuddin, Ph.D, joined St. John's University in September 2008 as **Professor of Industrial Pharmacy** after working for over 3 decades in the pharmaceutical industry in scientific and managerial positions. After joining the pharmaceutical industry as an Associate Senior Scientist in Revlon Health Care (later part of Sanofi-Aventis through mergers) in 1976, Dr. Serajuddin rose to the position of Director/Executive Director and the US Head of Drug Product Development for Novartis Pharmaceuticals Corp. in 1999. Later, from 2003 to 2008, he served as the Executive Director of Science, Technology & Outsourcing (STO) for Novartis with global responsibilities of developing drug delivery and pharmaceutical processing technologies, managing science and technology (Head, Science & Technology Forum), and outsourcing of pharmaceutical product development and pharmaceutical analysis (US only). Prior to joining Novartis in 1999, Serajuddin worked for 12 years in Bristol-Myers Squibb and 10 years in Sanofi-Aventis (through mergers).

For his leadership in the acceleration of drug product development at Bristol-Myers Squibb (BMS), he received **Productivity for Growth Award**, which was one of the top corporate-level recognitions given by the company to its employees. In addition, he received the **BMS President's Award** for unprecedented 3 times for his contribution and leadership in solving difficult drug product development issues. Later at Novartis, he was named **Novartis Leading Scientist**, a life-long recognition for extraordinary contribution to drug development and scientific excellence.

During the past 10 and a half years at St. John's University, Dr. Serajuddin has built an outstanding teaching and research program dedicated to the development of drug delivery systems and pharmaceutical processing technologies. His special expertise is in the development of poorly water-soluble drugs by using lipid based systems, solid dispersion, melt extrusion, nanotechnology, salt and co-crystal formation, etc. His research program also includes the melt granulation technology and the continuous manufacturing of active pharmaceutical ingredients and solid dosage forms. Additionally, he is conducting innovative research in applying the 3D printing technology in the development of pharmaceutical dosage forms and individualized medicines. He helped the University in establishing the **Industrial Pharmaceutical Innovation Laboratory** dedicated to research in drug product development and manufacturing by raising funds from alumni and the pharmaceutical industry. His contributions have been recognized by St. John's with the **Faculty Recognition Award for Outstanding**

Teaching and Services consecutively 10 times (2009-2018), **College of Pharmacy and Health Sciences Distinguished Alumni Award** (2018), and the **University Medal for Outstanding Achievement** (2019).

Dr. Abu Serajuddin authored over 100 research papers and book chapters, having over 8000 citations (as of May, 2019), and he made 136 invited presentations in major scientific conferences in the USA and other parts of the world. He is a co-inventor in 13 patents. One of his publications on the solid dispersion system technology [***J. Pharm. Sci.* 88:1058-1066 (1999**)] was identified by the Journal of Pharmaceutical Sciences as **one of the 10 outstanding papers published by the Journal in the decade of 1990s**; the paper has to date received over 1800 citations. Another paper on solubility of pharmaceutical salts **[Adv. Drug Deliv. Rev. 59:603-16 (2007)]** has been cited 1000 times.

For his scientific and professional achievements, Dr. Serajuddin was elected **Fellow** of American Association of Pharmaceutical Scientists (AAPS), American Pharmacists Association (APhA), International Union of Pure and Applied Chemistry (IUPAC), and American Association of Indian Pharmaceutical Scientists (AAiPS). AAPS also bestowed him three of its most distinguished awards: **AAPS Research Achievement Award for Formulation Design and Development** in 2010, **AAPS Research Achievement Award for Manufacturing Science and Engineering** in 2014, and **AAPS Lipid-Based Drug Delivery Outstanding Research Award** in 2015. He also received the **Distinguished Pharmaceutical Scientist Award** (2004) from the American Association of Indian Pharmaceutical Scientists (AAiPS). He was the recipient of the **IPEC Ralph Shangraw Memorial Award**, the highest scientific recognition given by the International Pharmaceutical Excipients Council (IPEC). Currently, he serves in **Editorial Advisory Boards** of *Journal of Pharmaceutical Sciences* and *Journal of Excipients and Food Chemicals*.

Among many professional leadership positions, Dr. Serajuddin chaired the AAPS Pharmaceutics and Drug Delivery (PDD) Section of in 2001, which, under his leadership, grew to the largest section of the association with 5,600 primary and secondary members. He also chaired AAPS Preformulation Focus Group (1994-96), which also became, under his leadership, the largest Focus Group of AAPS and served as the model of other focus groups in the Association. He served, from 2006 to 2009, as the Chair of Fellows Selection Committee of FDD/PDD Sections and, from 2011 to 2015, as the chair of the FDD Awards committee of AAPS. He organized numerous symposia and workshops for AAPS. He introduced Sunrise Session (originally named Sunrise Pharmacy School) at the AAPS annual meeting in 2000, which later became a regular feature and one of the most successful programs of AAPS annual meetings until the reorganization of AAPS in 2017.

II. Education

1982	Ph. D. in Industrial Pharmacy	St. John's University, Queens, New York, USA
1976	M. S. in Pharmaceutics	Columbia University, New York, New York, USA
1968-69	Specialization in Industrial Pharmacy *(One-year Italian Government International Scholarship)*	University of Pisa, Pisa, Italy
1967	Bachelor of Pharmacy (Honors) (*Ranked **first** in the Graduating Class in order of merit; equivalent to valedictorian in the US education system)*	University of Dhaka, Dhaka, Bangladesh

III. Employment History and Experience

2008 - Present Professor, Department of Pharmaceutical Sciences, College of Pharmacy & Health Sciences, St. John's University, 8000 Utopia Parkway, Queens, NY 11439, USA

- Teaches pharmaceutics and industrial pharmacy in both undergraduate and graduate levels.
- Built Industrial Pharmacy Innovation Laboratory, primarily focused on development of drug delivery systems and pharmaceutical processing technologies. Helped raise over one million dollars from external and internal sources to build and equip the laboratory.
- Secured major research grants from the pharmaceutical industry (>$1,100,000).
- Received National Science Foundation (NSF) grant.

2003 - 2008 **Executive Director,** Science, Technology and Outsourcing (STO), Novartis Pharmaceuticals Corp., East Hanover, NJ 07936, USA

- Head of Science and Technology Forum (S&T Forum) responsible for actively promoting innovation among approximately 1,700 scientists in Technical R&D located in nine sites in three continents. The S&T Forum was a cross-functional global team empowered to 'actively identify, promote, initiate, monitor and review scientific and technology projects'.
- Head of the Technology Matrix Team responsible for the development of drug delivery and processing technologies at Novartis R&D sites in Switzerland, France and the USA.
- Head of the Scientific Peer Review Team (2007-2008) responsible for critically reviewing all drug product development projects at different Novartis R&D sites in the USA and Europe. Addressed numerous drug development issues in projects ranging from developability assessment of new chemical entities (NCE) to technology transfer of fully developed products for manufacturing.
- US Head of the life cycle management (LCM) section.
- US Head of outsourcing pharmaceutical product development and pharmaceutical analysis.
- Member (2006-2007), Ophthalmology Disease Area Decision Board (DADB), the highest decision body for ophthalmic drug discovery and development programs at Novartis.

1999-2003 Executive Director (2002-2003) and Director (1999-2002), Pharmaceutical Development, Novartis Pharmaceuticals Corp., East Hanover, NJ 07936, USA

- Headed a department of 50-60 scientists, majority with PhD degrees, responsible for all drug product development activities in the US, ranging from drug discovery support and preformulation research to the transfer of fully developed products into manufacturing plants.

2003-2007 Full Professor (adjunct), Arnold and Marie Schwartz College of Pharmacy, Long Island University, Brooklyn, NY, USA

- Taught a 3-credit course in Industrial Pharmacy.

1996-1999 Associate Director, Early Drug Candidate Development, Pharmaceutics R&D, Bristol-Myers Squibb Co., New Brunswick, NJ 08901, USA

- Responsible for accelerated development of new drug candidates (non-biologicals). Responsibilities included collaborative research with the Drug Discovery division in identifying developable drug candidates, final form selection (including salt form), physicochemical characterization of drug substances, and development of oral and parenteral dosage forms for Phase I and Phase II clinical testing.

1986-1996 Section Head, Physical Pharmacy Section, Pharmaceutics R&D, Bristol-Myers Squibb Co., New Brunswick, NJ 08901, USA

- Responsible for a wide range of pharmaceutics research and development activities, including drug discovery support (developability assessment), preformulation research, novel drug delivery research, and transdermal product development.

1976-1986 Senior Scientist/Associate Senior Scientist, Revlon Health Care Group, Tuckahoe, NY (now part of Sanofi-Aventis through mergers)

- Responsible for preformulation, formulation and drug delivery research.

IV. Professional Honors, Awards and Recognitions (major ones only)

Research Achievement Award	**IPEC** (International Pharmaceutical Excipients Council) **Ralph Shangraw Memorial Award** (awarded in 2016) **AAPS** (American Association of Pharmaceutical Scientists) **Lipid-Based Drug Delivery Outstanding Research Award** (awarded in 2015) **AAPS Research Achievement Award in Manufacturing Science and Engineering (MSE)** (awarded in 2014) **AAPS Research Achievement Award in Formulation Design and Development (FDD)** (awarded in 2010) **AAiPS** (American Association of Indian Pharmaceutical Scientists) **Distinguished Scientist Award** (awarded in 2004)
Fellow	**Fellow**, American Pharmacists' Association (APhA) (awarded in 2006) **Fellow**, American Association of Indian Pharmaceutical Scientists (AAiPS) (awarded in 2004) **Fellow**, International Union of Pure and Applied Chemistry (IUPAC) (awarded in 2001) **Fellow**, American Association of Pharmaceutical Scientists (AAPS) (awarded in 1998)
Leading Scientist	**Novartis Leading Scientist** *(top recognition at Novartis for extraordinary scientific achievement awarded in 2005)*
Faculty Recognition Award	Received St. John's University Faculty Recognition Award for **Outstanding Teaching and Services** consecutively 10 times (every year) from 2009 to 2018. Awarded **St. John's University Outstanding Achievement Medal** (2019)

Guest Editor	**Journal of Excipients and Food Chemicals**, Special Issue, March 2014
Best Manuscript of the Year	Received **Best Manuscript of the Year** in November 2013 from **International Pharmaceutical Excipient Council of Americas (IPEC-Americas)** for a paper published in Journal of Excipients and Food Chemicals in 2012
Best Poster Awards	**Thermal and viscoelastic properties of polymers relevant to hot melt extrusion.** *Presented at Excipient Fest, the Annual Meeting of the Pharmaceutical Excipients Council (IPEC), Baltimore, MD, April 2013* **Experimental Determination of Microenvironmental pH of Pharmaceutical Solids.** AAPS Pharmaceutics and Drug Delivery Conference, Arlington, VA, April 2002.
Keynote Lectures	**The Future of Pharmaceutical Research in the USA.** *The 33rd Annual GRASP (Graduate Research of the Students in Pharmacy) 2014 Conference, Queens, NY, June 2014* **Challenges and Strategies in the Early-Stage Development of Poorly Water-Soluble Drugs**. *AAPS Northeast Regional Discussion Group Annual Meeting, Rocky Hill, CT, April 2011.* **The Future of Pharmaceutics and Drug Delivery.** *AAPS Pharmaceutics and Drug Delivery Conference, Arlington, VA, April 2002.*
Public Lecture	**Research Month Public Lecture of St. John's University.** *St. John's University inaugurated the public lecture on scientific topics by inviting Dr. Serajuddin for a presentation on* **"Technological Advances in Pharmaceutical Research: Increasing patient benefits and providing better therapy".** *Lecture was open to general public of the New York City.*
International Invitations for Keynote & Guest Lectures	**7th World Conference on Physicochemical Methods in Drug Discovery and Development (PCMDDD-5**), **2018, Osaka, Japan,** organized by International Association of Physical Chemists. (**Made 2 invited presentations.)** **6th World Conference on Physicochemical Methods in Drug Discovery and Development (PCMDDD-5**), **2017, Zagreb, Croatia,** organized by International Association of Physical Chemists. (**Made 3 invited presentations.)** **5th World Conference on Physicochemical Methods in Drug Discovery and Development (PCMDDD-5**), **2016, Zhuhai, China,** organized by International Association of Physical Chemists. (**Made 3 invited presentations.)** **4th World Conference on Physicochemical Methods in Drug Discovery and Development (PCMDDD-4), 2015, Red Island, Croatia,** organized by International Association of Physical Chemists. (**Made 4 invited presentations.)** **National Pharmaceutical Conference in Taiwan** organized by ITRI (Industrial Technology Research Institute), 2013. **Keynote presentation.** **Invited by Chinese Pharmaceutical Association (CPA**) **as a distinguished scientist in 2003 and 2005 for multiple presentations in Shanghai and Shenyang, respectively.** **Invited Speaker, Les Journées Galéniques de St Rémy (**an International Scientific Symposium Organized by Gattefossé s. a.**, 1997**, St Rémy, France.
International Thesis Examiner	**College of Pharmacy, Monash University, Australia, 2015.** **College of Pharmacy, Guru Nanak Dev University, Amritsar, India, 2014.**

External Referee for Faculty Promotion	**University of Jordan, Amman, Jordan** **King Saud University, Riyad, Saudi Arabia**
Grant Reviewer	**University of Ghent, Belgium**
Conference Chair	**Co-Chair and Organizer,** St. John's University Charles I Jarowski Symposium in Industrial Pharmacy, 2008-2015. *Organized the conference 7 times from 2008 to 2015.* **Co-chair**, AAPS Pharmaceutics and Drug Delivery Conference, Philadelphia, PA, 2004 **Co-chair**, AAPS Pharmaceutics and Drug Delivery Conference, Arlington, VA, 2002 **Co-chair,** AAPS/FDA Workshop on Polymorphism of Drug Substances: Manufacturing, Formulation, Analytical, Stability, Bioavailability and Regulatory Affairs Issues, Crystal City, MD, 1996
Outstanding Service Awards	**Outstanding Service Award**, AAiPS (American Association of Indian Pharmaceutical Scientists), 1998 **Special Recognition Award**, New Jersey Pharmaceutical Association for Science and Technology (NJPhAST), 1997
USP Delegate	**Delegate to the United States Pharmacopeial Convention,** representing St. John's University College of Pharmacy and Health Sciences (2010 to present)
Top Industry Awards	**Research Recognition Award,** Catalent Pharma Solutions, 2014. **BMS President's Awards** (won 3 times), Bristol-Myers Squibb (BMS) Pharmaceutical Research Institute, Princeton, NJ, 1996-98. ***Winning the award 3 times in less than 3 years was an unprecedented recognition.*** **Productivity for Growth Award**, Bristol-Myers Squibb, for Exemplary Leadership of a development project, 1995.

V. Professional Leadership

2018-2019	Member, American Pharmacists Association Academy of Pharmaceutical Research and Science (APhA-APRS) Gluten Work Group *(responsible for recommending gluten levels in drug products)*
2016-2018	Member, Awards Committee, American Association of Indian Pharmaceutical Scientists
2010-2017	Member, FDD (Formulation Design and Development) Section Fellows Selection Committee of the American Association of Pharmaceutical Scientists (AAPS)
2015-2017	Member, FDD (Formulation Design and Development) Section Awards Committee of the American Association of Pharmaceutical Scientists (AAPS)
	Chair, FDD (Formulation design and Development) Section Awards Committee of the

2011-2015	American Association of Pharmaceutical Scientists (AAPS).
2011-2012	Member, Programing Committee and Annual Meeting Planning Committee of AAPS Northeast Regional Discussion Group (NERDG)
2008-2015	Organizer and Co-Chair, Annual Charles I Jarowski Industrial Pharmacy Conference, St. John's University, Queens, New York *(organized and co-chaired this highly successful conference 7 times)*
2009-2013	Member, Board of Trustees, New Jersey Association of Pharmaceutical Science and Technology (NJPhAST)
2008-2011	Faculty Advisor, AAPS Students Chapter, St. John's University, Queens, NY.
2008-2009	Chair, FDD (Formulation design and Development Section) Fellows Committee, and Member, American Association of Pharmaceutical Scientists (AAPS) Fellows Selection Committee
2007-2008	Chair, PDD (Pharmaceutics & Drug Delivery Section) Fellows Committee, and Member, AAPS Fellows Selection Committee
2003-2008	Member, PDD (Pharmaceutics & Drug Delivery Section) Leadership Team, AAPS
2006-2007	Member, PDD-PT (Pharmaceutics & Drug Delivery and Pharmaceutical Technology Sections) Strategic Vision Committee, AAPS
2004-2006	Member, AAPS PDD Section Fellows Committee
2002-2006	Member, AAiPS (American Association of Indian Pharmaceutical Scientists) Graduate Students Poster Awards Committee
2002	Immediate Past Chair, PDD Section, AAPS
2001	Chair, PDD Section, AAPS
2000	Chair-Elect, PDD Section, AAPS, and Member, AAPS National Meeting Organizing Committee
1999	Vice-Chair, AAPS PDD Section, and Chair, AAPS PDD Programming Committee
1999-2000	Member, AAPS Task Force on Pharmaceutical Education (Chair: Prof. L. Augsburger)
1994-1996	Chair, AAPS Preformulation Focus Group
1994-1996	Member, AAPS PT Section Leadership Team
1994	Chair, PT Section Paper Screening Committee, AAPS National Meeting

1994	Member, PT Section Program Committee, AAPS National Meeting
1994	Chair, PDD Program Committee, AAPS Eastern Regional Meeting, New Brunswick, NJ, June 1994
1992-1993	Member, PDD Program Committee, AAPS Eastern Regional Meetings
1984-1985	Member, APhA Academy of Pharmaceutical Sciences (APS) Scientific Journal Evaluation Committee (Chair: Prof. J.R. Robinson)

VI. Conferences/Symposia Organized (Partial List)

1. July 24-28, 2018
   Co-organizer and Moderator, **Symposium on 3D Printing**, Controlled Release Society (CRS) Annual Meeting, New York, NY

2. September 1-6, 2017
   Co-organizer, **6th World Conference on Physicochemical Methods in Drug Discovery and Development** (PCMDDD-6), Zagreb, Croatia.

3. August 23-26, 2016
   Co-organizer, **5th World Conference on Physicochemical Methods in Drug Discovery and Development** (PCMDDD-5), Zhuhai, China

4. June 17, 2015
   Organizer and Co-Chair, **Eighth Annual Charles I. Jarowski Industrial Pharmacy Conference,** St. John's University, Queens, NY.

5. November 9-10, 2013
   Co-Organizer, **AAPS Workshop on Biopharmaceutical Roadmap (BioRAM),** San Antonio, Texas.

6. June 19, 2013
   Organizer and Co-Chair, **Seventh Annual Charles I. Jarowski Industrial Pharmacy Conference,** St. John's University, Queens, NY.

7. June 21, 2012
   Organizer and Co-Chair, **Sixth Annual Charles I. Jarowski Industrial Pharmacy Conference,** St. John's University, Queens, NY.

8. June 20, 2011
   Organizer and Co-Chair, **Fifth Annual Charles I. Jarowski Industrial Pharmacy Conference,** St. John's University, Queens, NY.

9. June 17, 2010
   Organizer and Co-Chair, **Fourth Annual Charles I. Jarowski Industrial Pharmacy Conference,** St. John's University, Queens, NY.

10. May 19, 2009
    Organizer and Co-Chair, **Third Annual Charles I. Jarowski Industrial Pharmacy Conference,** St. John's University, Queens, NY.

11. May 13-15, 2009
    Organizer and Moderator, AAPS Symposium on '**Drug Solubility: How to Measure It and How to Overcome It',** AAPS Workshop on Evolving Science and Technology in Physical Pharmacy and Biopharmaceutics, Baltimore, Maryland

12. November 2008
    Organizer and Moderator, **AAPS Symposium on 'Development of High-Energy Solids for Poorly Water-Soluble Drugs'**, AAPS National Meeting, Atlanta, GA

13. November 2008
    Organizer and Moderator, **AAPS Symposium on 'QbD at Drug Substance-Drug Product Interface'**, AAPS National Meeting, Atlanta, GA.

14. June 13, 2008
    Organizer and Co-Chair, **Second Annual Charles I. Jarowski Industrial Pharmacy Conference,** St. John's University, Queens, NY.

15. November 2004
    Organizer and Moderator, **AAPS Symposium on 'Recent Advances in the Formulation of Solid Dispersion Systems for Poorly Water-Soluble Drugs'**, AAPS National Meeting, Baltimore, MD.

16. November, 2004
    Organizer and Moderator, **AAPS Roundtable on 'Developability Assessment of New Drug Candidates'**, AAPS National Meeting, Baltimore, MD.

17. November, 2004
    Organizer and Moderator, **AAPS Roundtable on 'Biopharmaceutical and Pharmaceutical Technology Aspects of Fixed Combination Products'**, AAPS National Meeting, Baltimore, MD.

18. June 7-9, 2004
    Co-Chair, **Second AAPS Pharmaceutics and Drug Delivery Conference**, Philadelphia, PA.

19. June 7-9, 2004
    Organizer and Moderator, **PDD Symposium on 'Strategies and Considerations in Drug Product Life Cycle Management' Second AAPS Pharmaceutics and Drug Delivery Conference**, Philadelphia, PA.

20. 2001, 2002, 2003 and 2004
    Member, **PDD Section Programming Committees, AAPS Annual Meetings**

21. April 22-24, 2002
    Co-Chair and Principal Organizer, **First AAPS Pharmaceutics and Drug Delivery Conference**, Arlington, VA

22. April 25-26, 2002

Co-Organizer and Moderator, **AAPS Workshop on Chemical and Physical Form Selection of Drug Candidates: Principles, Considerations and Case Studies**, Arlington, VA

23. October, 2001
    Organizer and Moderator, **AAPS Symposium on 'Development of Poorly Soluble Drugs'**, AAPS National Meeting, Denver, CO.

24. October 2000
    Chair, **PDD Section Programming Committee, AAPS Millennium Annual Meeting**, Indianapolis, IN.

25. November 1998
    Organizer and Moderator, **Roundtable Session on 'Solubilization of Poorly Aqueous-Soluble Drugs for Parenteral Delivery'**, AAPS National Meeting, San Francisco, CA.

26. November 1997
    Organizer and Moderator, **AAPS Symposium on 'Acceleration of the Early Drug Development Process'**, AAPS National Meeting, Boston, MA.

27. October 27-31, 1996
    Organizer, **Themed Interactive Podium Session on 'Final Form Selection and Early Development Issues with New Drug Candidates'**, AAPS National Meeting, Seattle, WA.

28. June 16-19, 1996
    Co-Organizer and Moderator, **Full-day Symposium of Colloidal Aspects of Drug Delivery,** Chemical Society Colloid and Surface Science Meeting, Potsdam, New York.

29. February 26-28, 1996
    Co-Chair, Primary Organizer and Moderator, **AAPS/FDA Workshop on Polymorphism of Drug Substances: Manufacturing, Formulation, Analytical, Stability, Bioavailability and Regulatory Affairs Issues**, Crystal City, Maryland

30. November 1994
    Co-organizer, **PT-APQ-RA Joint Symposium on "Application of Preformulation and Accelerated Stability to Scientific Formulation Design" at the AAPS National Meeting,** San Diego, CA.

31. November 1994
    Chairman of the PT Section Paper Screening Committee, **1994 AAPS National Meeting**, San Diego, CA: Responsible for organizing all poster, podium, and focus group presentations of contributed papers

32. June 6-7, 1994
    Chair, PDD Programming Committee, **1994 AAPS Eastern Regional Meeting** at New Brunswick, NJ. Personally organized the following symposia at the meeting:
    - PT-PDD Joint Symposium on "New Drug Development – From Discovery to Product Approval"
    - PDD-BIOTEC Joint Symposium on "Delivery Challenges for Biotechnology Products"
    - PDD Symposium on "Recent Development in Drug Delivery"

33. November 1993
    Organizer and moderator, PT Contributed Paper Session at the **1993 AAPS Annual Meeting,** Orlando, FL.

34. June 1993
    Organizer and moderator, Symposium on "Emerging Technologies for Special Drug Delivery Systems" at the **1993 AAPS Eastern Regional Meeting**, New Brunswick, NJ.

35. August 1993
    Organizer and moderator, **Symposium on "Current Topics in Pharmacy Practice"** at the Annual Meeting of the Bangladeshi-American Pharmacists Association, Harrisburg, PA.

36. Organizer and moderator, Symposium on "Bioavailability Considerations in Dosage Form Design" at the **1992 AAPS Eastern Regional Meeting**, New Brunswick, NJ, June 1992.

VII. Research Grants at St. John's University

Extra-mural (External Sources), $1,165,000 (Principal Investigator)

1. NSF Preplanning Grant NSF's for Establishment of Industry University Cooperative Research Center (IUCRC) program (https://www.nsf.gov/eng/iip/iucrc/about.jsp). The new center is named "Center for Integrated Material Sciences and Engineering for Pharmaceutical Products" or CIMSEPP.

   National Science Foundation December 2018–November 2019

2. Investigation of Investigation of Formulation and Processing Parameters Affecting Melt Granulation

   Bristol-Myers Squibb July 2015 – December 2016

3. Investigation of the Opportunity for Improvement of Performance and Patient Convenience of Commercially Available Drug Products

   Latitude Pharmaceuticals January 2015 – December 2017

4. Research grant for the hiring of a post-doctoral fellow from Dr. Mahendra Shah, a distinguished alumnus of St. John's University

   Dr. Mahendra Shah July 2014 – April 2017

5. Investigation of Hot Melt Extrusion Technology in Development of Solid Dispersion of Poorly Water-Soluble Drugs

   Catalent Pharma Solutions, Somerset, NJ July 2012 – March 2015

6. Physicochemical and Mechanistic Evaluation of Lipids and Surfactants Leading to Development of Lipid-based Drug Delivery Systems

   ABITEC Corp, Columbus, OH November 2009 – August 2017

7. Development of Physically Stable Amorphous Drug Substances and Solid Dispersions by Interaction with Counter Ions and Acidic Polymers and Mechanistic Study of Such Stabilization

   Hoffmann-La Roche, Nutley, NJ 9/09 – 8/12

8. Abon Pharmaceuticals, NJ, as contribution towards the purchase of a melt extruder and a spray dryer (2011 and 2012)

9. Sigcap Pharmaceuticals, India, for the development of modified release tablets by using the osmotic pump principle.

Intra-mural (From the Provost's and the Dean's Funds at St. John's), $670,000

A. Seed money for setting up a research laboratory: *$100,000 (2 years: 2008-2010).*
B. Additionally, he purchased the following (and other) equipment from his grants and the support of the university:
   1) Powder X-ray diffractometer, SAC grant, $85,000 (2009)
   2) 11-mm twin-screw melt extruder, $90,000 (2011)
   3) Rheomete), $55,000 (2012)
   4) Buchi Nano spray dryer , $55,000 (2012)
   5) Tablet press and roller compactor, $70,000 (2013)
   6) High shear granulator, $35,000 (2014)
   7) VTI moisture sorption analyzer, $55,000 (2015)
   8) Raman Spectrometer, $95,000 (2016)
   9) K-Tron Feeder for melt extruder, $30,000 (2016)

Fund-raising for Industrial Pharmacy Laboratory/Pilot Plant, $500,000

Dr. Serajuddin helped the University in raising over $500,000 from alumni and friends of St. John's University as well as from the pharmaceutical industry for the building of a new Industrial Pharmacy Laboratory and Pilot Plant in the College of Pharmacy and Allied Health Professions. The construction was completed in January 2011. The laboratory has been equipped with the purchase of equipment worth over $650,000.

VIII. Serajuddin Research Group at St. John's University

During the past 10.5 years at St. John's University, Abu Serajuddin built an outstanding research group at St. John's. With his supervision of research, 8 students received PhD degrees and 12 students MS degrees. Currently, he has 8 PhD/MS students in his group. He also contributed to the graduate

education at St. John's greatly by serving in PhD/MS thesis committees of 30 students. He served in the Graduate Education Policy Committee (GEPC) of the College of Pharmacy for 5.5 years.

Present Members

A. Currently mentoring 8 graduate students for their research (as of May 2019):

1. Nitprapa Siriwannakij, PhD student
2. Jaydip Vasoya, PhD student
3. Heta Desai, PhD student
4. M Irfan Syed, PhD student
5. Nirali Patel, PhD student
6. Dhaval Mori, PhD student
7. Can Wei, MS student
8. Mufaddal Kathawala, MS student

Past Members of the Group

A. PhD Students Supervised with Graduation Dates

1. Nayan Solanki, PhD (2019)
2. Suhas Gumaste, PhD (2017)
3. Anuprabha Meena, PhD (2017)
4. Amol Batra, PhD (2016)
5. Ankita Shah, PhD (2016)
6. Hetal Prajapati, PhD (2014)
7. Simerdeep Singh Gupta, PhD (2014)
8. Tapan Parikh, PhD (2014)

B. MS Students and Research Assistants Supervised with Graduation Dates

1. Md. Tahsin (2018)
2. Nirali Patel (2017)
3. Niharika Sharma (2013)
4. Prajwal Thool (2013)
5. Komal Sorathiya (2013)
6. Saad Muntazim (2013)
7. Nrupa Patel (2012)
8. Suhas Gumaste (2012)
9. Saumya Singh (2011)
10. Hetal Prajapati (2010)
11. Darshil Patel (2010)
12. Ankita Shah (2010)

C. Post-Doctoral Fellows Supervised

1. Ankita Shah, PhD (2017 to 2019, 2.5 years)

2. Pengli Bu, PhD (2015 to 2016; 1.5 year)
3. Simerdeep Singh, PhD (2014-15; 1 year)
4. Mohammed Rashel, PhD (2014-15; six months)
5. Sabir Mirza (2014; four months)

D. Visiting Scholars

1. Carolina Aloisio, PhD, University of Cordova, Argentina (Fulbright Scholar, June to September, 2018; 3 months)
2. Kyle Lam, Cooper Union of Advancement in Science and Art, New York (3 months from June to August, 2017)
3. Prof. Tu Lee, PhD, National Central University, Taiwan (3 months from June to September, 2016 with a scholarship from the Government of Taiwan)
4. Hung-Lin Lee, PhD candidate, National Central University, Taiwan (7 months from March to October 2016 with a scholarship from the Government of Taiwan)
5. Monique Santana (Visiting scholar from Brazil; one semester, 2015)
6. Giullana Ferreira (Visiting scholar from Brazil; one semester, 2015)
7. Beatryz Freire (Visiting scholar from Brazil; one semester, 2015)
8. Lucas Lima Torres (Visiting scholar from Brazil; one semester, 2015)
9. Marilia De Lima Cirqueira (Visiting scholar from Brazil, one semester, 2014)
10. Cristina Maki Horimoto (Visiting scholar from Brazil, one semester, 2013)
11. Tinne Monteyne, Ph.D. student (visiting scholar from Ghent University, Belgium) (January 2013-May 2013)

E. Service to Thesis Committees

1. Pavankumar Nukala (PhD) (current student)
2. Vineela Parvathaneni (PhD) (current student)
3. Snehal Shukla (PhD) (current student)
4. Kanyaphat Bunchongprasert (PhD) (current student)
5. Jiayi Chen (PhD) (current student)
6. Abdul Shaikh (MS)
7. Siddhant Palekar (MS)
8. Darshana Shah (PhD)
9. Mansi Shah (PhD)
10. Yochana Srivari (MS)
11. Bharat Kirthibhasan (PhD)
12. Murali M. Bomana (PhD)
13. Parag Ved (PhD)
14. Meiki Yu (PhD)
15. Saurabh Mishra (MS)
16. Tejasvi Venkayala (MS)
17. Mohammed M. Alvi (MS)
18. Deepti Namini (MS)
19. Yanpeng Feng (MS)
20. Vijetha Kode (MS))
21. Dhirender Singh (MS))
22. Shreya Shah (MS)
23. Jignesh Patel (MS)
24. Abhijat Shikar (MS)

25. Simerdeep Sigh Gupta (MS)
26. Sangram Raut (MS)
27. Shilpa Raut (MS)
28. Mannan Parikh (MS)
29. Nishant Parikh (MS)
30. Harsh Mehta (MS)

IX. Major Drug Products Developed in Pharmaceutical Industry

Dr. Serajuddin's career in the pharmaceutical industry was devoted to drug product development, and made major contribution to the development of the following marketed products. It should, however, be mentioned that due to high attrition rate during development, a large majority of compounds Serajuddin worked on for clinical development was not marketed.

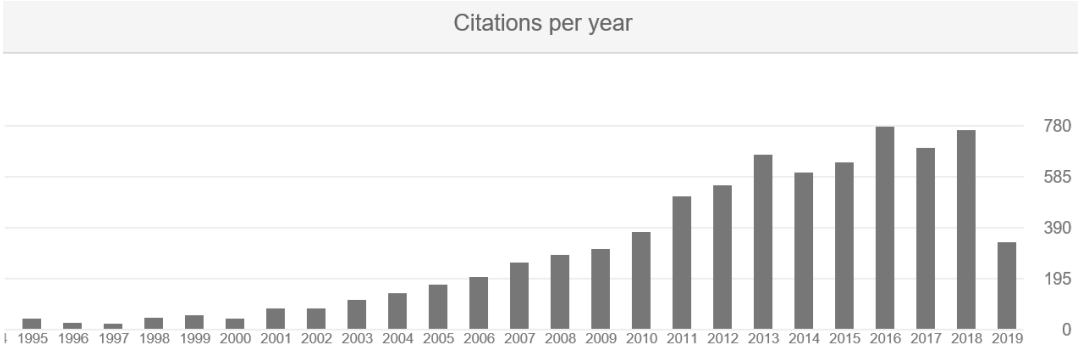
Lozol (Indapamide) Diuretic	1977-1980 Revlon Health Care (Aventis through merge) One of the principle scientists responsible for its development; conducted all preformulation studies. **SOLVED DIFFICULT SOLUBILITY, BIOAVAILABILITY AND POLYMORPHISM ISSUES.**
Pravachol (Pravastatin sodium) Cholesterol-lowering statin	1986-1988 Bristol-Myers Squibb Responsible for all physical pharmacy aspects of the development of this blockbuster product with peak sale of over $2 billion. **SOLVED DIFFICULT STABILITY ISSUES.** Discovered that, in contrast to other statins, the hydrophilic nature of pravastatin results in lesser CNS side affects; this finding contributed to its marketing advantage over other statins.
Monopril (Fosinopril sodium) ACE inhibitor	1986-1989 Bristol-Myers Squibb Another block-buster product. Conducted most preformulation studies. SOLVED DIFFICULT STABILITY ISSUES THAT MADE THE COMMERCIAL DEVELOPMEN T OF THE PRODUCT POSSIBLE.
Avapro (Irbesartan) Angiotensin 2 Receptor Antagonist	1995-1998 Bristol-Myers Squibb Solved difficult polymorphism issue for this blockbuster product, and represented company to the FDA. **Won BMS President's Award for this achievement.**
Reyataaz (Atazanavir sulfate)	1997-1999 Bristol-Myers Squibb

Anti-AIDS	**CONTRIBUTED TO THE IDENTIFICATION OF THE BISULFATE SALT FORM OF THIS DRUG, WHICH INCREASED BIOAVAILABILITY FROM LESS THAN 5% TO OVER 40% AND LED TO ITS BLOCKBUSTER STATUS**. Won BMS President's Award for this achievement.
Lescol XR (Fluvastatin) Cholesterol-lowering statin	1999-2000 Novartis Pharmaceuticals Corp. Provided scientific and managerial leadership in product scale up and NDA submission.
Starlix (Nateglinide) Antidiabetic	1999-2000 Novartis Pharmaceuticals Corp. Provided scientific and managerial leadership in product scale up and NDA submission.
Ritalin LA (methyl phenidate) ADHD	1999-2001 Novartis Pharmaceuticals Corp. Provided scientific and managerial leadership to the successful development of the long-acting form of this major ADHD drug (in collaboration with Elan)
Prexige (Lumiracoxib) COX-2 inhibitor	1999-2003 Novartis Pharmaceuticals Corp. **LED HIGHLY ACCELERATED DEVELOPMENT PROGRAM (<3 YEARS) FOR A PRODUCT THAT WAS EXPECTED TO BE A BLOCKBUSTER.**
Galvus (Vildagliptin) DPP IV inhibitor Antidiabetic	2001-2005 Novartis Pharmaceuticals Corp. **DIRECTED PRODUCT DEVELOPMENT. SOLVED DIFFICULT STABILITY ISSUES.** (This product has become a blockbuster in Europe and outside USA. The US approval is pending.)
Eucrease (Vildagliptin-metformin) Antidiabetic	2005-2007 Novartis Pharmaceuticals Corp. **INVENTED A NOVEL MELT GRANULATION TECHNOLOGY, WITHOUT WHICH THE DEVELOPMENT OF THIS HIGH-DOSE AND UNSTABLE PRODUCT (VILDAGLIPTIN) WOULD NOT HAVE BEEN POSSIBLE. INVENTOR IN SEVERAL PATENTS.** (This product has become a blockbuster in Europe and outside USA. The US approval is pending.)

x. Publications

(*Given below is a summary of citations as of May 20, 2019)*

	All	Since 2014
Citations	8033	3831
h-index	41	30
i10-index	83	66



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2. Solanki, N.G., Gumaste, S.G., Shah, A.V. and Serajuddin, A.T., 2019. **Effects of Surfactants on Itraconazole-HPMCAS Solid Dispersion Prepared by Hot Melt Extrusion. II: Rheological Analysis and Extrudability Testing.** *Journal of Pharmaceutical Sciences*. https://doi.org/10.1016/j.xphs.2019.05.010. Published online on May 16, 2019.
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105. A. T. M. Serajuddin. **Challenges and opportunities in the development of poorly water-soluble drugs for oral administration**. *Commemorative Souvenir - The 40th Anniversary Celebration of Pharmacy in Bangladesh.* Published by Dhaka University, Bangladesh, April 2008.

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108. A. T. M. Serajuddin. **Me-Too and Not Me-Too: Issues Involving Drug Discovery and Development.** *BAPA Pharmacy Journal***,** August, 1993.

109. **A. T. M. Serajuddin**. How Industry-Pharmacist Cooperation Can Improve the Public Appreciation for Drugs. ***BAPA Pharmacy Journal,*** August, 1992 *(Journal of Bangladeshi-American Pharmacists Association).*

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XI. Patents

1. **Sugar ester nanoparticle stabilizers.** US Patent Application, US 20160235687 A1, August 2016. Inventors: H. N. Prajapati, A.T.M. Serajuddin. Assigned to St. John's University. Patent issued on January 1, 2019. with Patent No: US 10,166,197 B2

   Solid dosage forms containing nanoparticles are prepared where sugar esters serve as nanoparticle stabilizers that prevent agglomeration of nanoparticles during preparation of the solid dosage form and allow for restoration of the original nanoparticle size of the nanoparticles upon redispersion of the solid dosage form in aqueous media.

2. **Continuous processing for making pharmaceutical compositions**. WO 2009/134848 A1, published 2009. Inventors: J. Kowalski, J. Lakshman, A. Serajuddin, Y. Tong, M. Vasanthavada (Novartis).

   Co-invented a novel process of manufacturing solid dosage forms where powders are converted to tablets or capsules through a continuous process involving blending, extrusion, cooling, milling and finishing. This was possible by the discovery that polymeric excipients can make drug powders readily compressible if extruded through a melt extruder at temperatures above glass transition temperatures of polymers used, but below the melting points of drug substances. Only 5-10% w/w polymeric excipients were necessary to make the powders compressible.

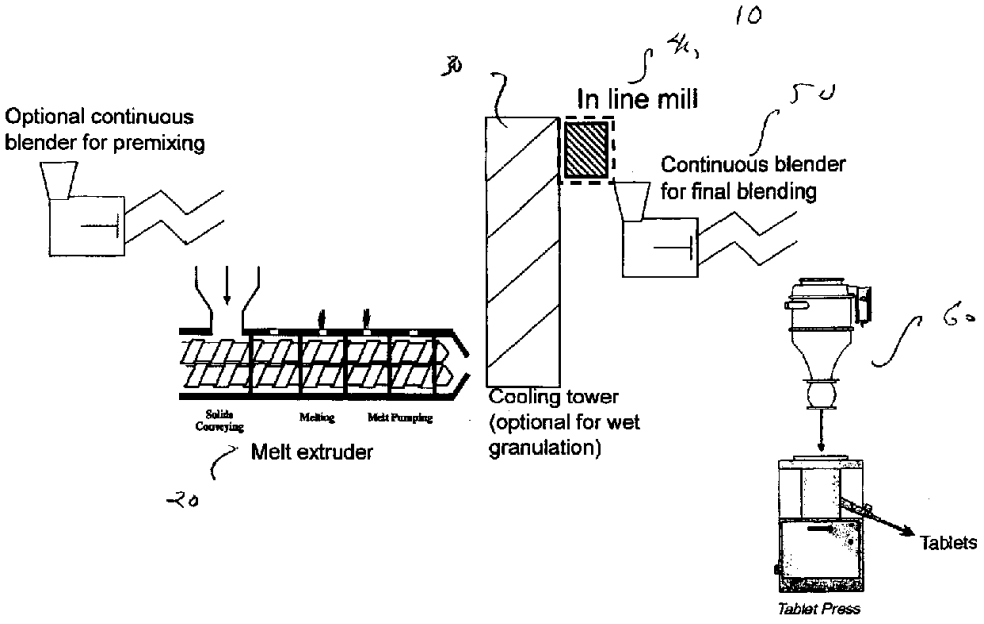

Fig. 1

3. **Heated roller compaction process for making pharmaceutical compositions.** WO2007130478A2, May 3, 2007. Inventors: J. Kowalski, J.P. Lakshman, A.T.M. Serajuddin, W. Tong (Novartis)

   A novel process of preparing melt granulations of drug substances by using a heated roller compactor, especially for poorly compressible and/or moisture sensitive compounds.

4. **Modified release 1-[(3-hydroxy-adamant-1-ylamino)-pyrrolidine-2(S)-carbonitrile formulation** (modified release Galvus tablet). WO 2006135723 A2, July 5, 2007. Inventors: J. Kowalski, J. Lakshman, A. Serajuddin, Y. Joshi (Novartis).

   Modified release dosage form of Galvus, a major Novartis product.

5. **Process for making compositions with poorly compressible therapeutic compounds** (compressibility enhancement by melt granulation, a platform technology). WO 2006122021A1, November 16, 2006. Inventors: M. Vasanthavada, J. Lakshman, W. Tong, A. Serajuddin, Y. Joshi, J. Kowalski (Novartis).

   A platform technology that led to development of high-dose immediate release and extended release products by using minimal amounts of excipients.

6. **Pharmaceutical compositions comprising imatinib and release retardant** (development of high-dose and modified release Gleevec tablet by melt extrusion). WO 2006/121941 A2, November 16, 2006. Inventors: M. Vasanthavada, J. Lakshman, W. Tong, A. Serajuddin (Novartis).

   Gleevec is marketed as a 400-mg tablet. However, there was a market need for a modified-release 800-mg tablet, which was technologically challenging because in such a tablet the drug substance itself weighs 975 mg and the total tablet weight becomes over 1500 mg (not commercially acceptable). A formulation using only 5-10 percent of release-modifying polymer was developed, thus keeping the tablet weight below the acceptable limit of 1100 mg.

7. **Pharmaceutical formulations of bisphosphonates** (development of oral zoledronate with enhanced bioavailability). US20070134319A1, June 14, 2007 (EP1699443 A2, September 13, 2006) Inventors: E. Zannou, S. Bateman, M. Pudipeddi, A. Royce, A. Serajuddin (Novartis).

   Zolendronic acid (Zometa) was marketed as an injection. Orally, it is poorly bioavailable (<1%). Conceptualized and co-developed a drug delivery system that increased its oral bioavailability by a factor of 5 to 10.

8. **Spontaneously dispersible pharmaceutical compositions** (novel solid microemulsion preconcentrate that maintains all attributes liquid preconcentrate but can be filled in hard gelatin capsule). WO 2006050123 A1, May 11, 2006 (EP1807049A1, July 18, 2007). Inventors: P. Li, M. Pudipeddi, A. Royce, S. Hynes, A. Serajuddin, M. Ambuehl, B. Lueckel (Novartis).

   The major disadvantage of a lipid-based system is that it is often developed as a liquid microemulsion preconcentrate that requires encapsulation into soft gelatin capsules.

Conceptualized and co-developed a novel technology whereby microemulsion preconcentrates can be developed as solids, yet maintaining all attributes of liquids. This is a break-through innovation in the field of self-emulsifying lipid-based drug delivery systems.

9. **Fast release composition including melt granules of moisture sensitive drug and process for manufacturing thereof** (Stabilization of immediate release Galvus from moisture by melt granulation) WO 2006021455 A1, March 2, 2006. Inventors: J. Kowalski, O. Kalb, A. Serajuddin, Y. Joshi (Novartis).

Vildagliptin is one of the most important compounds discovered and developed by Novartis. A stabilized vildagliptin dosage form was developed for its optimal clinical efficacy.

10. **Stabilized pharmaceutical compositions.** WO2005044255A1, May 19, 2005. Inventors: M. Mecadon, Q. Ji, A.T.M. Serajuddin, E. Zannou (Novartis)

A novel technology was introduced at Novartis whereby the stability of solid dosage forms could be enhanced by modifying microenvironmental pH of solid dosage forms.

11. **Sustained Release Formulation Containing Captopril and Method.** U.S. Patent No. 5,433,951, assigned to Bristol-Myers Squibb 1995. Inventors: A.T.M. Serajuddin, M.G. Fakes.

Developed the first once-a-day hard gelatin captopril dosage form by using lipid-based liquid-fill technology. It was a break-through discovery, but the product was not marketed due to strategic reasons (close to patent expiration).

12. **Pharmaceutical Compositions Having Good Dissolution Properties.** U.S. Patent No. 5506248 assigned to Bristol-Myers Squibb in 1994. Inventors: F. Nikfar, A.T.M. Serajuddin, R.L. Jerzewski, N.B. Jain.

Successful application of microenvironmental pH modification to overcome drug dissolution issues.

13. **Corticosteroid (Tipredane) Topical Formulations.** U. S. Patent No. 4,868,170, assigned to E. R. Squibb & Sons in 1989. Inventors: S.A. Varia, M.M. Faustino, A.T.M. Serajuddin.

XII. Presentations

Invited Presentations

(Partial list; major invited presentations only)

1. April 23, 2019.
   Enabling strategies for development of HPMCAS-based amorphous solid dispersion by HME. Webinar, sponsored by Thermo Fisher Scientific and global participation (Available on demand: https://www.thermofisher.com/solubilitywebinars)

2. April 11, 2019.
   Development of HPMCAS-based solid dispersion and modified release dosage form by using the hot melt extrusion technology. AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

3. November 6, 2018.
   A Toolbox to Enhance Drug Performance: Formulation of 3D-Printed Tablets for Rapid Drug Release by Fused Deposition. AAPS Annual Meeting (AAPS PhrmSci 360), Washington, DC

4. August 27, 2018.
   Bioavailability enhancing technologies for poorly water-soluble drugs. Two-hour short course presentation at IAPC (International Association of Physical Chemists) 7th World Conference on Physicochemical Methods Applied to Drug Discovery and Development, Osaka, Japan

5. August 30, 2018.
   Development of Supersaturating Solid Dispersions of Poorly Water-Soluble Basic Drugs by Interaction with Non-Salt Forming Weak Carboxylic Acids and with HPMC-AS. IAPC (International Association of Physical Chemists) 7th World Conference on Physicochemical Methods Applied to Drug Discovery and Development, Osaka, Japan

6. July 24-28, 2018.
   Formulation of 3D Printed Tablets for Rapid Drug Release by Fused Deposition Modeling. Controlled Release Society (CRS) Annual Meeting, New York, NY

7. May 24, 2018.
   Application of Hot Melt Extrusion Technology in Development of Solid Dispersion Systems for Poorly Water-Soluble Drugs. Advances in Drug Delivery Conference. Touro College, New York

8. November, 2017
   Investigation of HPMCAS-Surfactant and HPMCAS-Drug-Surfactant Miscibility for Solid dispersion, Hot Melt Extrusion and Drug Release. The American Association of Pharmaceutical Scientists (AAPS) Annual Meeting, San Diego, California.

9. September 1-3, 2017
   Biopharmaceutical roadmap: Optimization of clinical drug product performance. 3rd International Summer School on Drug Development, Zagreb, Croatia

10. September 1-3, 2017
    Recent advances in the solid dispersions of poorly water-soluble drugs. 3rd International Summer School on Drug Development, Zagreb, Croatia

11. September 4-7, 2017
    Strategies for the development of liquid, semisolid and solid lipid-based drug delivery systems. Sixth World Conference on Physicochemical Methods in Drug Discovery and Development, Zagreb, Croatia

12. September 4-7, 2017
    How Feasible is it to Form Cocrystals by Acid-base Interaction? Sixth World Conference on Physicochemical Methods in Drug Discovery and Development, Zagreb, Croatia.

13. July 21-22, 2017
    Quality Formulation for Success: Development of Products According to Biopharmaceutical Risk Assessment Roadmap. The Fourth Annual American Association of Bangladeshi Pharmaceutical Scientists (AABPS) Convention, Marriott Courtyard-University of Delaware, Newark, Delaware

14. April 20, 2017
    Advances in Small Molecule Drug Delivery: Solid Dispersion by Acid-Base Interaction and Supersolubilization. The 20th Annual AAPS Northeast Regional Discussion Group (NERDG) Meeting, Farmington, Connecticut

15. November 13-17, 2016
    How Integration of Excipient Science with Technology Can Lead to Better Products and Continuous Manufacturing. Ralph Shangraw Memorial Lecture, Excipients Focus Group Town Hall Meeting at AAPS Annual Meeting, Denver, Colorado

16. September 14, 2016
    Investigation of HPMCAS-Surfactant and HPMCAS-Drug-Surfactant Miscibility for Solid Dispersion and Hot Melt Extrusion. Second Annual Shinetsu Conference on **"Recent Advances in Drug Delivery and Solubility Enhancement Based on Cellulosic Polymers"**, Cambridge, Massachusetts

17. August 23-26, 2016
    Transforming New Molecular Entities into Drug Products. Fifth World Conference on Physicochemical Methods in Drug Discovery and Development, Zhuhai, China

18. August 23-26, 2016
Optimization of Clinical Drug Product Performance using Biopharmaceutics Risk Assessment Roadmap (BioRAM). Fifth World Conference on Physicochemical Methods in Drug Discovery and Development, Zhuhai, China

19. August 23-26, 2016
Strategies for the development of liquid, semisolid and solid lipid-based drug delivery systems. Fifth World Conference on Physicochemical Methods in Drug Discovery and Development, Zhuhai, China

20. May 19, 2016
Enabling Pharmaceutical Technologies for Drug Delivery Systems. **KEYNOTE PRESENTATION in the Annual Scholarship Meeting of the New Jersey Association of Pharmaceutical Science and Technology (NJPhAST), New Jersey**

21. April 13, 2016
Technological Advances in Pharmaceutical Research. ST. JOHN'S UNIVERSITY PUBLIC LECTURE on Novel Drug Delivery Systems to Increase Benefits by Better Therapy. St. John's University, Queens, New York. (Lecture open to the university community and New York City area public).

22. October 25-29, 2015
Successful Transition from Industry to Academia. Professional Development Mini-symposium. AAPS Annual Meeting, Orlando, Florida.

23. October 25-29, 2015
A Systematic Approach to Development of SEDDS: Phase Diagram and Cytotoxicity Assessment. AAPS Outstanding Award In Lipid-based Drug Delivery Lecture. AAPS Annual Meeting, Orlando, Florida.

24. September 21-24, 2015
Structure of Pharmaceutical Research and Different Paradigms of Drug and Formulation Development in the Pharmaceutical Industry. Fourth World Conference on Physicochemical Methods in Drug Discovery and Development, Red Island, Croatia

25. September 21-24, 2015
Biopharmaceutics Risk Assessment Roadmap (BioRAM): Optimization of Clinical Drug Product Performance. Fourth World Conference on Physicochemical Methods in Drug Discovery and Development, Red Island, Croatia

26. September 21-24, 2015
Enabling Technologies for Bioavailability Enhancement and Dosage Form Development of Poorly Water-soluble Drugs. Fourth World Conference on Physicochemical Methods in Drug Discovery and Development, Red Island, Croatia

27. September 21-24, 2015
Practical Strategies for the Development of Lipid-based Drug Delivery Systems for Poorly Water-Soluble Drugs. Fourth World Conference on Physicochemical Methods in Drug Discovery and Development, Red Island, Croatia

28. May 7, 2015
Physicochemical Considerations in Selecting Polymers for Preparation of Solid Dispersion by Melt Extrusion. 6th Symposium on Solubility Enhancement Utilizing Pharmaceutical Melt Extrusion and Spray Drying Techniques, organized by Evonik Industries, Piscataway, New Jersey

29. April 28-29, 2015
Navigating BioRAM for and Maintenance of Target Exposure
University of Wisconsin Workshop on "Navigating the Biopharmaceutics Risk Assessment Road Map (BioRAM): Therapy-Driven QTPP Strategies for Clinically Relevant-Specification Setting", USP Conference Center, Rockville, Maryland

30. November 4, 2014
The Future of Tableting Technology: Impact of Hot-Melt Granulation Using Twin-Screw Extruders. The AAPS Research Achievement Award Lecture, AAPS-MSE Section Business Meeting, San Diego, California

31. November 1-2, 2014
Implications of Solidifying Self Emulsifying Drug Delivery Systems. AAPS Workshop on Improving Oral Bioavailability by Lipid-based Delivery Approaches. San Diego, California

32. September 10, 2014
Preformulation Considerations in Development of Amorphous Solid Dispersion by Hot-Melt Extrusion. Conference on 'Advances in Drug Delivery: Optimal Bioavailability and Controlled Release Solutions for Improved Outcomes', Catalent Advanced Drug Delivery Institute, Somerset, New Jersey

33. June 5-7, 2014
The Future of Pharmaceutical Research in the USA. ***KEYNOTE PRESENTATION.*** The 33rd Annual Conference of the Graduate Research Association in Pharmacy, St. John's University, Queens, New York

34. May 21-22, 2014
Practical Considerations in the Development of Solid Dispersion by Hot-Melt Extrusion. The 2nd David Grant Symposium, University of Minnesota, Minneapolis, Minnesota.

35. May 9, 2914
Enabling Technologies for Dosage Form Development of Poorly Water-soluble Drugs. University of Kentucky, Lexington, Kentucky

36. October 24, 2013
Pharmaceutical Development of Poorly Water-soluble Compounds. Biopharmaceutical Forum, Celgene Pharmaceutical Corp, Summit, New Jersey.

37. September 25, 2013
Bioavailability Enhancement of Drugs by Hot-melt Extrusion and Microemulsion (3-hour tutorial)
Chemical Engineering Department, New Jersey Institute of Technology (NJIT), Newark, New Jersey.

38. September 14, 2013
Practical Considerations in Development of Microemulsion Systems for Poorly Water-Soluble Drugs. Annual Meeting of the American Association of Indian Pharmaceutical Scientists (AAiPS), Baskin Ridge, New Jersey.

39. September 9-11, 2013
Bioavailability Enhancement and Dosage Form Development of Poorly Water-soluble Drugs by Solid Dispersion. National Conference on **Pharmaceutical Profiling and Development for Potential Drug Candidates**, organized by **Industrial Technology Research Institute** (ITRI, a semi-governmental research institute), Hsinchu, Taiwan.

40. September 9-11, 2013
Practical Strategies for the Development of Lipid-based Drug Delivery Systems for Poorly Water-Soluble Drugs. National Conference on **Pharmaceutical Profiling and Development for Potential Drug Candidates**, organized by **Industrial Technology Research Institute** (ITRI, a semi-governmental research institute), Hsinchu, Taiwan.

41. June 2-8, 2013
Enabling Technologies for Bioavailability Enhancement and Dosage Form Development of Poorly Water-soluble Drugs. Gordon Conference on Preclinical Form and Formulation for Drug Discovery, Waterville Valley, New Hampshire.

42. October 14, 2012
Recent Progress in Solid Dispersion of Poorly Water-soluble Drugs: Basic Principles, Enabling Technologies, Physicochemical Evaluation, and in *vitro-in vivo* Correlation. Short course presentation, AAPS National Meeting, Chicago, IL

43. August 24-26, 2012
Innovative Drug Delivery Technologies for Poorly Water-Soluble Drugs. 21st Annual Convention, Bangladeshi-American Pharmacists' Association, Stockton Seaview Hotel, Galloway, NJ

44. May 10, 2012
Innovative Drug Delivery Technologies for Poorly Water-Soluble Drugs. Catalent Conference on Drug Delivery, Hamilton, NJ

45. February 8, 2012
Hot Melt Extrusion Technology: Development of High-energy Solid Dispersions and High-dose Tablets, in Webinar on Applied Drug Delivery: Hot Melt Extrusion and Optidose Technology organized by Catalent Pharma Solutions (Over 300 scientists from the US and Europe participated in the Webinar)

46. November 17, 2011

Application of Melt Extrusion and Melt Granulation Processes using Twin-Screw Extruders in Development of Drug Products. Chicagoland Discussion Group, North Chicago, IL

47. October 23-27, 2011
Application of Melt Granulation Technology in the Development of High-Dose Tablet. Presentation organized by Thermo Scientific, at National Meeting of the American Association of Pharmaceutical Scientists (AAPS), Washington DC Convention Center, Washington, DC.

48. **October 23-27, 2011**
Development of Solid Self-Emulsifying Drug Delivery Systems (Roundtable Presentation). National Meeting of the American Association of Pharmaceutical Scientists (AAPS), Washington DC Convention Center, Washington, DC.

49. September 23, 2011
Formulation Strategy for Lipid-based Oral Delivery of Poorly Water-Soluble Drugs. The 50th Annual Eastern Pharmaceutical Technology Conference, Somerset Holiday Inn, Somerset, NJ

50. September 20, 2011
Application of Melt Granulation Technology Using Twin-Screw Extruder in Development of High-Dose MR and IR Tablets. Thermo Scientific Conference on "Fast Forward the Development and Delivery of Poorly Water-Soluble Drugs and High-Dose Tablets", The Conference Center at Waltham Woods, Massachusetts Medical Society, Waltham, MA

51. July 1-3, 2011
Challenges and Opportunities of the Pharmaceutical Industry in Bangladesh. Federation of Bangladeshi Pharmaceutical Associations of North America (FOBANA) Annual Conference, New Jersey Convention Center, Secaucus, NJ

52. April 15, 2011
Challenges and Strategies in the Early-Stage Development of Poorly Water-Soluble Drugs (Keynote Presentation). AAPS Northeast Regional Discussion Group Annual Meeting, Rocky Hill, CT**.**

53. February 24, 2011
Application of Melt Granulation Technology in Development of High-Dose Tablets for Immediate and Modified Drug Release. Hot Melt Extrusion Conference, Abon Laboratories, Northvale, NJ.

54. October 2010
Melt Granulation Technology Using Twin-Screw Extruders: The Granulation Technology of the Future. Bangladeshi-American Pharmacists Association (BAPA) Annual Convention.

55. November 2010
Formulation of Poorly Water-Soluble Drugs: Drug Delivery Strategies. AAPS Research Achievement Award Winner Lecture. AAPS Annual Meeting, New Orleans, LA.

56. June 23, 24 and 25, 2010
Oral Lipid-based Drug Development: Addressing an Urgent Industrial Need. Capsugel Lipid-based Drug Delivery Symposium Series. Presented 3 consecutive lectures in Cambridge (MA), Raleigh (NC) and Princeton (NJ).

57. March 1, 2010
Drug Product Development in the Pharmaceutical Industry: Overcoming Challenges in Oral Delivery of Poorly Water-Soluble Drugs. Invited presentation in Doctoral Seminar Series (open to full university community and guests), St. John's University, Queens, NY.

58. January 19, 2010
Formulation of Poorly Water-Soluble Drugs: Drug Delivery Strategies. Teva Pharmaceuticals, Pomona, NY.

59. December 17, 2009
Formulation of Poorly Water-Soluble Drugs: Salt Selection and Special Drug Delivery Systems. Celgene Pharmaceuticals**,** Summit, NJ.

60. December 9, 2009
Early Phase Drug Product Development Challenges and Strategies. Celgene Pharmaceuticals, Summit, NJ.

61. November 2009
Early Development of Poorly Water-Soluble NCEs: Potential Advantages of Keeping Development Activities *in house*. AAPS Annual Meeting, Los Angeles, CA.

62. November 2009
Oral Delivery of Poorly Water-Soluble Drugs: *In situ* Nanoparticle Formation Applying Nanoemulsion and Solid Dispersion Technologies, AAPS Annual Meeting, Los Angeles, CA.

63. October 2, 2009
Development of Bioavailable Dosage Forms for Poorly Water-soluble Drugs. Evonik-Degussa Conference on Melt Extrusion of Drugs and Excipients, New Brunswick, NJ.

64. May 20, 2009
Challenges and Strategies in Dosage Form Development of the New Generation of Poorly Water-Soluble Drugs. Sanofi-Aventis, Bridgewater, NJ.

65. May 19, 2009
Applications of Melt Granulation Technology in Development of High-Dose Tablets and Continuous Processing. The Third Annual Dr. Charles I. Jarowski Industrial Pharmacy Symposium, St. John's University, Queens, NY.

66. May 13 – 15, 2009
Development of Solid Dispersions and High Energy Solids to Enhance Solubility and Dissolution Rate of Solid Dosage Forms. AAPS Workshop on Evolving Science and Technology in Physical Pharmacy and Biopharmaceutics, Baltimore, Maryland.

67. April 14, 2009
Salt selection and optimization for new chemical entities. AAPS Webinar, American Association of Pharmaceutical Scientists, 12:30-2:00 PM EDST

68. March 26, 2009
Career opportunities for pharmacists in drug product development. APhA-ASP Pharmacists' Roundtable, St. John's University.

69. March 19, 2009
Development of Poorly Water-soluble drugs – Novel Strategies. Bristol-Myers Squibb Pharmaceuticals Co, New Brunswick, NJ.

70. March 10-11, 2009
Lipid-based solid dispersion for oral delivery. AAPS Workshop on Scientific and Technological Advances in the Use of Lipid-based Drug Delivery Systems for Bioavailability Enhancement and Tissue Targeting, Baltimore, MA.

71. March 6, 2009
Dosage Form Development of the New Generation of Poorly Water-Soluble Drugs, **Boehringer Ingelheim Pharmaceuticals**, Ridgefield, CT

72. February, 2009
Career options in pharmaceutical industry. St. John's University Students AAPS Chapter, Queens, NY

73. January 30, 2009
How to build a portfolio to attract industry positions. University of Pacific Students AAPS Chapter, Stockton, CA.

74. January 30, 2009
Formulation development challenges and strategies for poorly water-soluble drugs. CV Therapeutics, Palo Alto, CA.

75. January 29, 2009
Challenges and strategies in dosage form development of the new generation of poorly water-soluble drugs. Bay Area Discussion Group (BADG), San Mateo, CA.

76. January 29, 2009
Pharmaceutical Salts, **Xenoport Pharmaceuticals**, Santa Barbara, CA.

77. November 2008
Development of surfactant and lipid-based solid dispersions and solid microemulsion preconcentrates for oral delivery of poorly water-soluble drugs. American Chemical Society-New York Chapter, Westchester, NY.

78. November 2008

Decline in new molecular entities in the pharmaceutical industry: Can drug delivery systems come to the rescue? American Association of Pharmaceutical Scientists (AAPS), American Association of Bangladeshi-American Pharmaceutical Scientists, Atlanta, GA.

79. November 2008

    Liquid and Solid Microemulsion Preconcentrate Systems for Oral Delivery. AAPS Annual Meeting, Atlanta, GA.

80. October 2008

    Importance of Drug Delivery Systems in the Growth of Pharmaceutical Industry. New Jersey Pharmaceutical Association of Science and Technology (NJPhAST), Mahwah, NJ.

81. September 2008

    Development oral dosage forms for the new generation of poorly water-soluble drugs: Challenges and opportunities. EPTM Annual Meeting 2008, Somerset, NJ.

82. April 2008

    Relevance of Physicochemical Characteristics in Dissolution and Drug Product Development. AAPS Workshop on the Role of Dissolution in QbD and Drug Product Life Cycle, Arlington, VA.

83. March 2008

    Importance of Drug Delivery Systems in the Future Growth of Pharmaceutical Industry. St. John's University, Jamaica, New York.

84. August 2006

    Integrated Approach to Drug Product Development. BAPA Annual Convention.

85. November 2005

    Drug-Excipient Compatibility Screening. **AAPS Annual Meeting Short Course**.

86. September 2005

    Application of Solid Dispersion in the Development of Poorly Water-Soluble Drugs. CPA/AAPS Joint Conference on Current Status and Future Trends in Drug Delivery Systems, Shenyang, China.

87. September 2005

    Physical Pharmaceutics of Poorly Water-Soluble drugs. CPA/AAPS Joint Conference on Current Status and Future Trends in Drug Delivery Systems. Shenyang, China.

88. September 2005.

    Strategies for Development of Poorly Water-Soluble Drugs. Shanghai Military University College of Pharmacy, Shanghai, China.

89. August, 2005

    Solid State Pharmaceutics of Poorly Water-soluble Drugs. **BAPA Annual Convention,** Catskill Mountains, NY.

90. June 2005

Recent Advances in the Application of Solid Dispersions for Poorly Water Soluble Drugs. The Second Annual Anthony P. Simonelli Conference in Pharmaceutical Sciences, Long Island University, Brooklyn, NY

91. November, 2004
    In Silico Prediction and Software Simulation as a Platform to Identify Absorption Rate Limiting Factors in Early Product Development. AAPS Annual Meeting Symposium.

92. October, 2004
    IV-IVC Considerations in the Development of Immediate-Release Oral Dosage Forms. University of Connecticut College of Pharmacy, Storrs, CT.

93. August, 2004
    Overview of In Vitro-In Vivo Correlation: Impact of Physicochemical Properties of Drug Substances on Oral Absorption. BAPA Annual Convention, Catskill Mountains, NY.

94. June 2004
    Current Trends in Formulation and Bioavailability Enhancement by Solid Dispersion. AAPS Pharmaceutics and Drug Delivery Conference, Philadelphia, PA.

95. June 2004
    Formulation Challenges and Strategies in the Accelerated Drug Discovery and Development Process. Twenty-fourth Annual Graduate Research Association of Studies in Pharmacy (GRASP). Atlanta, GA.

96. November 2003
    Product Life Cycle Management. CPA/AAPS Joint Symposium on Pharmaceutical Science, Shanghai, China.

97. November 2003
    Solid Dispersion in PEG-Surfactant Systems. CPA/AAPS Joint Symposium on Pharmaceutical Science, Shanghai, China.

98. November 2003
    Recent Trends in Drug Delivery Systems. CPA/AAPS Joint Symposium on Pharmaceutical Science, Shanghai, China.

99. November 2003
    Present and Future of Pharmaceutics and Drug Delivery. Shanghai Military University College of Pharmacy, Shanghai, China.

100. October 2003
    How Graduate Education in Pharmaceutics is Meeting its Objectives: An Industrial Scientist's Perspective. AAPS Annual Meeting Roundtable, Salt Lake City, UT.

101. August 2003
    In Vitro-In Vivo Correlation in Immediate Release Oral Formulation Development. Bangladeshi-American Pharmacists' Association (BAPA) Annual Convention, Trumbull, CT.

102. April 2003
Early Phase Formulation Challenges and Strategies. Idaho State University College of Pharmacy, Pocatello, ID.

103. November, 2002
Education Beyond Graduate Studies to Become Successful Industrial Scientists: Perspective of a Preformulation/Formulation Scientist. AAPS Annual Meeting Symposium, Toronto, Canada.

104. August 2002
Drug Development Challenges. Bangladeshi-American Pharmacists' Association (BAPA) Annual Convention, Somerset, NJ.

105. August 2002
Early Phase Formulation Challenges. Sino-American Pharmaceutical Professionals Association (SAPA) Annual Conference Symposium, North Branch, NJ.

106. April 2002
A Systematic Approach to the Identification of Chemical and Physical Forms. AAPS Workshop on Chemical and Physical Form Selection of Drug Candidates: Principles, Considerations and Case Studies, Arlington, VA.

107. April 2002
Selection of Scalable Phase I Formulation. AAPS Pharmaceutics and Drug Delivery Conference, Arlington, VA.

108. April 2002
The Future of Pharmaceutics and Drug Delivery. AAPS Pharmaceutics and Drug Delivery Conference, Arlington, VA, (Keynote Presentation in the General Session).

109. April 2002
Lipid-Based Systems for Oral Drug Delivery: Enhancing the Bioavailability of Poorly Soluble Drugs. **AAPS Pharmaceutics and Drug Delivery Conference,** Arlington, VA.

110. February 2002
Drug Delivery Systems. Long Island University, Brooklyn, NY.

111. July 2001
Solid Dispersion Systems. BAPA Annual Convention, Catskill Mountains, NY.

112. March 2000
Acceleration of the Drug Development Process. Rutgers University, New Brunswick, NJ.

113. November 1999
Solid Dispersion of Poorly Water-Soluble Drugs: Promises, Problems and Breakthroughs. AAPS Annual Meeting Symposium, New Orleans, LA.

114. June 1999

Development Strategies for Marketable Formulations. Land-O-Lakes Meeting (University of Wisconsin Extension Services), Madison, Wisconsin.

115. March 1999
Solid Dispersion of Poorly Water-Soluble Drugs: Problems, Promises and Breakthroughs. St. John's University Graduate Seminar Series, Queens, NY.

116. November 1998
Education in Pharmaceutical Sciences: Where are We Heading? AAPS Annual Meeting Education Committee Roundtable, San Francisco, CA**.**

117. November 1998
Importance of pH-Solubility and pH-Dissolution Rate Studies in Accelerating the Drug Development Process. AAPS Annual Meeting Symposium on Preformulation Research Methodologies in Shortening Cycle Time of Drug Development, San Francisco, CA.

118. September 1998
Education in Pharmaceutical Sciences: Future Direction. Rutgers University, New Brunswick, NJ.

119. August 1998
Education in Pharmaceutical Sciences: Where Are We Heading? Annual Meeting of the Bangladeshi-American Pharmacists' Association, Cherry Hills, NJ.

120. May 1998
Future of Pharmaceutics: Focus on Education. University of Utah, Salt Lake City.

121. April 1998
New Direction in Education in Pharmaceutical Sciences. Temple University, Philadelphia, PA.

122. December 1997
Drug Development Process in the Pharmaceutical Industry. Purdue University, West Lafayette, Indiana.

123. June 1997
Bioavailability Enhancement by Solid Dispersion in Surface Active and Self-Emulsifying Vehicles. Les Journées Galéniques de St Rémy **(**an International Scientific Symposium Organized by Gattefossé s. a.**)**, St Rémy, France.

124. May 1997
Acceleration of Drug Development through Preformulation Research. New Jersey Association of Pharmaceutical Science and Technology, Rahway, NJ.

125. October 1996
Bioavailability Enhancement by Solid Dispersion: Past Problems, Recent Advances and Future Prospects. AAPS National Meeting Open Session on Oral Bioavailability Enhancement, Seattle, WA.

126. June 16-19, 1996

Enhancement of Oral Bioavailability of Drugs by Solid Dispersion in Surface Active and Self-Emulsifying Vehicles: Recent Developments and Future Prospect. Symposium on Colloidal Aspects of Drug Delivery, American Chemical Society Colloid and Surface Science Meeting, Potsdam, New York.

127. February 1996
Preformulation Testing for Polymorphism and Polymorphic Changes. AAPS/FDA Workshop on Polymorphism of Drug Substances, Crystal City, Arlington, VA.

128. November 1994
Drug-Excipient Compatibility Testing for Formulation Development. PT-APQ-RA Joint Symposium on "Application of Preformulation and Accelerated Stability to Scientific Formulation Design" in AAPS National Meeting, San Diego, CA.

129. November 1994
Drug Discovery Support by Development Scientists: Bioavailability Issues. Formal Presentation and Roundtable Discussion, *AAPS National Meeting,* San Diego, CA.

130. July 1994
Preformulation Activities and Drug Development. Second International Conference on Pharmaceutical Sciences and Technology (Sponsored by Fine Particle Society), East Brunswick, NJ.

131. June 1994
Selection of Optimal Clinical Development Candidates through Pharmaceutics-Drug Discovery Interaction. PT-PDD Joint Symposium on "New Drug Development - From Discovery to Product Approval" in AAPS Eastern Regional Meeting, New Brunswick, NJ.

132. March 1994
Preformulation Programs and Protocols for New Product Development. AAPS/FDA/USP Workshop on Stability Guidelines for Pharmaceutical Products : Issues and Alternatives II, Hyatt Regency Crystal City, Arlington, VA.

133. December 1992
Physicochemical Support of Drug Discovery and Development. Philadelphia Discussion Forum, Ambler, PA.

134. August 1992
Present and Future of Drug Research: What Will Pharmacists Dispense During Next Fifty Years? Annual Meeting of the Bangladeshi-American Pharmacists' Association, Mt. Arlington, NJ.

135. June 1991
Development of Oral Dosage forms for Poorly Water-Soluble Drugs. AAPS Eastern Regional Meeting, New Brunswick, NJ.

136. May 1987
Development of Solid Dispersion Systems for Poorly Water-Soluble Drugs: Physicochemical, Biopharmaceutical and Technological Considerations. Pharmaceutical Research Conference, organized by St. John's University, Queens, New York.

Contributed Presentations (podium and poster in external meetings)

(Partial list)

1. May 16, 2019

   Jaydip M. Vasoya, Ankita V. Shah, Abu T. M. Serajuddin. **Investigation of possible solubility and dissolution advantages of cocrystals: Aqueous solubility and dissolution rates of ketoconazole and its cocrystals as functions of pH.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Marriott Hotel, Whippany, NJ.

2. May 16, 2019

   Mufaddal Kathawala, Nayan Solanki, Abu T. M Serajuddin. **HPMCAS- based Solid Dispersions prepared by Hot- Melt Extrusion: Tabletability and Drug Release from Tablets.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Marriott Hotel, Whippany, NJ.

3. May 16, 2019

   Heta H. Desai, Xingguo Cheng, Abu T.M. Serajuddin. **Formulation Development and Cytotoxicity Evaluation of Self-emulsifying Drug Delivery System (SEDDS) Containing Long Chain Fatty Acid for Oral Delivery of Poorly Water Soluble Drugs.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Marriott Hotel, Whippany, NJ.

4. April 11, 2019

   Jaydip Vasoya, Ankita Shah, Abu Serajuddin. **Investigation of Possible Solubility and Dissolution Advantages of Cocrystals: Aqueous Solubility and Dissolution Rates of Ketoconazole and its Cocrystals as Functions of pH.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

5. April 11, 2019

   Nitprapa Siriwannakij, Abu Serajuddin. **Effect of Polymers and Surfactants on *In Situ* Nano/Microparticle Formation of Ritonavir Amorphous Solid Dispersion.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

6. April 11, 2019

   Mufaddal Kathawala, Nayan Solanki, Abu Serajuddin. **Effect of Surfactants on Itraconazole-HPMCAS Solid Dispersion Prepared by Hot-melt Extrusion: Tableting of Milled Extrudates and Drug Release from Tablets.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

7. April 11, 2018

   Can Wei, Nayan Solanki, Jaydip Vasoya, Ankita Shah, Abu Serajuddin. **Development of 3D Printed Tablets by Fused Deposition Modeling for Rapid Drug Release Using a Polyvinyl Alcohol-based Polymer.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

8. April 11, 2019

   Heta Desai, Pengli Bu, Ankita Shah, Xingguo Cheng, Abu Serajuddin. **Evaluation of Cytotoxicity of Self-Emulsifying Formulations Containing Long-Chain Lipids Using Caco-2 Cell Model: Superior Safety Profile Compared to Medium Chain Lipids.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

9. November 3-6, 2018

   Nayan Solanki, Suhas Gumaste, Ankita Shah, Abu Serajuddin. **Formulation of HPMCAS-based solid dispersions prepared by hot-melt extrusion: Polymer-drug-surfactant miscibility, extrudability, and effect of surfactants on drug release.** AAPS Annual Meeting (PharmSci 360), Washington, DC

10. November 3-6, 2018

    Nirali Patel, Abu Serajuddin. **Effect of moisture and temperature on physical stability of amorphous solid dispersion.** AAPS Annual Meeting (PharmSci 360), Washington, DC. **WINNER OF BEST POSTER AWARD.**

11. November 3-6, 2018

    Can Wei, Nayan Solanki, Ankita Shah, Abu Serajuddin. **Development of 3D Printed Tablets by Fused Deposition Modeling for Rapid Drug Release.** AAPS Annual Meeting (PharmSci 360), Washington, DC

12. November 3-6, 2018

    Jaydip Vasoya, Shireen Farzadeh, Abu Serajuddin. **Continuous Single Step Processing of Salt Synthesis and Granulation Using a Twin Screw Extruder for Development of Solid Dosage Forms.** AAPS Annual Meeting (PharmSci 360), Washington, DC. **WINNER OF BEST POSTER AWARD.**

13. November 3-6, 2018

    Heta Desai, Pengli Bu, Xingguo Cheng, Abu Serajuddin. **Evaluation of Cytotoxicity of Self-Emulsifying Formulations Containing Long-chain Lipids Using Caco-2 Cell Model.** AAPS Annual Meeting (PharmSci 360), Washington, DC

14. November 3-6, 2018

    Nayan Solanki, Mufaddal Kathawala, Abu Serajuddin. **HPMCAS-based Solid Dispersions Prepared by Hot Melt Extrusion: Tabletability and Drug Release from Tablets.** AAPS Annual Meeting (PharmSci 360), Washington, DC

15. August 28-30, 2018

    Abu T.M. Serajuddin, Nayan Solanki, Kyle Lam, Md Tahsin, Suhas Gumaste, Ankita V. Shah. **Formulation of HPMCAS-based Solid Dispersions Prepared by Hot-melt Extrusion: Effect of Surfactants on Processing Temperature, Drug Release & Supersaturation.** IAPC & PCF-J Meeting: Seventh World Conference on Physico-Chemical Methods in Drug Discovery & Physico-chemical forum of Japan, Osaka, Japan

16. May 17, 2018

    Jaydip Vasoya, Abu Serajuddin. **Continuous Preparation of Pharmaceutical Salt by a Novel Solvent-free Method Using a Twin-screw Extruder.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Whippany, NJ.

17. May 17, 2018

    Nayan Solanki, Abu Serajuddin. **Formulation of HPMCAS-based Solid Dispersions Prepared by Hot-melt Extrusion: Polymer-Drug-Surfactant Miscibility, Extrudability, and Effect of Surfactants on Drug Release.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Marriott Hotel, Whippany, NJ.

18. April 12, 2018

    Nayan Solanki, Abu Serajuddin. **Formulation of 3D Printed Tablet for Rapid Drug Release by Fused Deposition Modeling (FDM): Screening Polymers for Drug Release, Drug-Polymer Miscibility and Printability.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

19. April 12, 2018

    Jaydip Vasoya, Abu Serajuddin. **Continuous Preparation of Pharmaceutical Salt by a Novel Solvent-free Method Using a Twin-screw Extruder.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

20. April 12, 2018

    Heta Desai, Abu Serajuddin**. Self-microemulsifying Drug Delivery Systems (SMEDDS) for Oral Delivery of Poorly Water-soluble Nutraceuticals.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

21. April 12, 2018

    Nirali Patel, Abu Serajuddin. **Moisture Sorption by Different Polyvinylpyrrolidones and Related Polymers and its Effects on Glass Transition Temperatures,** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

22. April 12, 2018

    Nirali Patel, Abu Serajuddin. **Effect of Moisture and Temperature on Physical Stability of Amorphous Solid Dispersions,** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

23. April 12, 2018

    Jaydip Vasoya, Abu Serajuddin. **Use of Acconon C-50 for Enhanced Dissolution of Solid Dispersions Prepared by Hot-melt Extrusion.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Farmington, CT

24. November 12-15, 2017

Nayan Solanki, Md. Tahsin, Jaydip Vasoya, Ankita Shah, Abu Serajuddin. Preparation of 3D Printed Tablet for Immediate Release by Fused Deposition Modeling. AAPS Annual Meeting, San Diego, CA

25. November 12-15, 2017
    Jaydip Vasoya, Heta Desai, Abu Serajuddin. **Development of Solid Dispersions in Lipid-Polymer Mixtures by Hot-Melt Extrusion.** AAPS Annual Meeting, San Diego, CA

26. November 12-15, 2017
    Jaydip Vasoya, Ankita Shah, Abu Serajuddin. **Continuous Preparation of Salts of Poorly Soluble Drugs by Novel Solvent-Free Method Using Twin Screw Melt Extrusion.** AAPS Annual Meeting, San Diego, CA

27. November 12-15, 2017
    Nirali Patel, Ankita Shah, Abu Serajuddin. **Moisture Sorption by different Polyvinylpyrollidone and related polymers and its effects on Glass Transition Temperature.** AAPS Annual Meeting, San Diego, CA

28. November 12-15, 2017
    Heta Desai, Ankita Shah, Abu Serajuddin. **Self-MicroEmulsifying Drug Delivery System (SMEDDS) for Poorly Soluble Nutraceuticals.** AAPS Annual Meeting, San Diego, CA

29. May 18, 2017
    Jaydip M. Vasoya, Hung-Lin Lee, Marilia de Lima Cirqueira, Kuan Lin Yeh, Tu Lee, Ankita V. Shah and Abu T.M. Serajuddin. **Continuous Preparation of Salts of Poorly Soluble Drugs by Novel Solvent-Free Method Using Twin Screw Melt Extrusion**. The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Marriott Hotel, Whippany, NJ. **Winner of the Scholarship Award.**

30. May 18, 2017
    Nayan Solanki, Md Tahsin, Jaydip Vasoya, Suhas Gumaste, Ankita Shah, Abu T.M. Serajuddin. **Preparation of 3D Printed Tablet for Immediate Release by Fused Deposition Modeling (FDM).** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Marriott Hotel, Whippany, NJ. **Winner of the Scholarship Award.**

31. November 13-17, 2016
    Pengli Bu, Abu Serajuddin. **Assessment of cytotoxicity and permeation enhancement of lipid-based self-emulsifying drug delivery systems with Caco-2 cell model: Polysorbate 80 as the surfactant.** AAPS Annual Meeting, Denver, Colorado.

32. November 13-17, 2016
    Suhas Gumaste, Abu Serajuddin. **Impact of carrier pore size on the extent of drug release from lipid based formulations solidified by adsorption onto silicas.** AAPS Annual Meeting, Denver, Colorado.

33. November 13-17, 2016

Nayan Solanki, Simerdeep Singh Gupta, Abu Serajuddin. **Application of oscillatory Rheology to evaluate miscibility and identify processing conditions for melt extrusion of Soluplus®-Itraconazole mixtures.** AAPS Annual Meeting, Denver, Colorado.

34. November 13-17, 2016

    Amol Batra, Dipen Desai, Abu Serajuddin. **Investigating the use of polymeric binders in twin screw melt granulation process for improvement in compactibility of drugs.** AAPS Annual Meeting, Denver, Colorado.

35. May 19, 2016

    A. Meena, D. Desai, A. T.M. Serajuddin. **Application of wet-melt granulation using twin screw extruder to develop a tablet formulation of poorly compactible high-dose drug.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Whippany, NJ. WINNER OF OUTSTANDING POSTER AWARD.

36. May 19, 2016

    S. Gumaste, N. Solanki, A. T.M. Serajuddin. **Application of Film Casting Technique and Rheology for Development of Amorphous Solid Dispersions of Itraconazole in HPMCAS by Hot Melt Extrusion.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Whippany, NJ

37. May 19, 2016

    A. Batra, D. Desai, A. T.M. Serajuddin. **Use of Polymeric Binders in Twin Screw Melt Granulation Process for Improvement in Compactibility of Poorly Compactible Drugs.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Whippany, NJ

38. May 19, 2016

    A. Shah, A. T. M. Serajuddin. **Dissolution Enhancement of Cinnarizine by Preparing Ternary Solid Dispersions with Malic Acid and PVP K30 using a Hot-melt Extrusion Process.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Whippany, NJ

39. May 19, 2016

    Nayan Solanki, Simerdeep Singh Gupta, Abu T.M. Serajuddin. **Application of Oscillatory Rheology to Evaluate Soluplus®-Itraconazole Miscibility Relevant to Hot-melt Extrusion.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, Whippany, NJ

40. April 19, 2016

    S Gumaste, SS Singh, ATM Serajuddin. **Investigation of Polymer-Surfactant and Polymer-Drug-Surfactant Miscibility for Solid Dispersion.** The 2016 AAPS-NERDG (American Association of Pharmaceutical Scientists Northeast Regional Discussion Group) Annual Meeting, Farmington, CT

41. April 19, 2016

Nayan Solanki, Simerdeep Singh Gupta, Abu T.M. Serajuddin. **Application of Oscillatory Rheology to Evaluate Soluplus®-Itraconazole Miscibility Relevant to Hot-melt Extrusion.** The 2016 AAPS-NERDG (American Association of Pharmaceutical Scientists Northeast Regional Discussion Group) Annual Meeting, Farmington, CT

42. April 19, 2016

    A. Batra, D. Desai, A. T.M. Serajuddin. **Investigating the Use of Polymeric Binders in Twin Screw Melt Granulation Process for Improvement in Compactibility of Poorly Compactible Drugs.** The 2016 AAPS-NERDG (American Association of Pharmaceutical Scientists Northeast Regional Discussion Group) Annual Meeting, Farmington, CT

43. April 16, 2015

    N. Solanki, S. Singh Gupta, A.T.M. Serajuddin. **Investigation of thermal and viscoelastic properties of polymers relevant to hot melt extrusion, IV: Affinisol™ HME polymers.** The 2015 AAPS-NERDG (American Association of Pharmaceutical Scientists Northeast Regional Discussion Group) Annual Meeting, Farmington, CT

44. October 25-29, 2015

    P. Bu, S. Narayanan, P. Jirwankar, D. Dalrymple, M. Culver , X. Cheng , A. T. Serajuddin . **Toxic or Not: Effect of Lipid, Surfactant and Lipid-Surfactant Mixture on Viability of Caco-2 Cells**. Presented at the AAPS Annual Meeting, Orlando, Florida.

45. October 25-29, 2015

    N. Solanki , S. Gupta , A. T. Serajuddin . **Investigation of Thermal and Viscoelastic Properties of Polymers Relevant to Hot Melt Extrusion IV: Affinisol™ HME Polymers**. Presented at the AAPS Annual Meeting, Orlando, Florida.

46. October 25-29, 2015

    N. Solanki , S. Gupta , M. Santana , G. Braga , A. T. Serajuddin. **Effect of Added Polymers on Viscoelastic Properties of Hydroxypropyl Methylcellulose Acetate Succinate (HPMC-AS) Relevant to Melt Extrusion.** Presented at the AAPS Annual Meeting, Orlando, Florida.

47. October 25-29, 2015

    A. V. Shah, A. T. Serajuddin. **Development of Supersolubilized Solid Dispersions of Cinnarizine by Interaction with Weak Organic Acids.** Presented at the AAPS Annual Meeting, Orlando, Florida.

48. May 21, 2015

    Nayan Solanki, Simerdeep Singh Gupta, Abu T.M. Serajuddin**. Investigation of thermal and viscoelastic properties of polymers relevant to hot melt extrusion, IV: Affinisol™ HME polymers.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, East Hanover, NJ

49. April 16, 2015

    N. Solanki, S. Singh Gupta, A.T.M. Serajuddin. **Investigation of thermal and viscoelastic properties of polymers relevant to hot melt extrusion, IV: Affinisol™ HME polymers.** The 2015

AAPS-NERDG (American Association of Pharmaceutical Scientists Northeast Regional Discussion Group) Annual Meeting, Farmington, CT

50. November 2-6, 2014
    K. Sorathiya, P. Thool, H. Prajapati, D. Dalrymple, A. T. M. Serajuddin. **Effects of Different Surfactants on Microemulsion Formation by Medium Chain Lipids.** Presented at the AAPS Annual Meeting, San Diego, California.

51. November 2-6, 2014
    S. S. Gupta, N. S. Penumaka, I. Vitez, K. Crowley, A. T.M. Serajuddin. **Temperature Prediction for Hot Melt Extrusion by Modification of Gordon-Taylor Equation.** Presented at the AAPS Annual Meeting, San Diego, California.

52. November 2-6, 2014
    S. S. Gupta, N. S. Penumaka, I. Vitez, N. Mahajan, A. T.M. Serajuddin. **Phase Analysis and Rheological Testing in Development of Ritonavir Solid Dispersion by Hot Melt Extrusion.** Presented at the AAPS Annual Meeting, San Diego, California.

53. November 2-6, 2014
    Simerdeep Singh Gupta, Abu T.M. Serajuddin. **Dissolution and Dispersion Testing of Ritonavir Solid Dispersions Prepared by Melt Extrusion.** Presented at the AAPS Annual Meeting, San Diego, California.

54. May 22, 2014
    Simerdeep Singh Gupta and A. T. M. Serajuddin. **In Vitro Dispersion Analysis of Ritonavir Solid Dispersions Prepared by Melt Extrusion.** The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, East Hanover, NJ

55. May 22, 2014
    S. Gumaste, S.S. Gupta and A. T. M. Serajuddin. Temperature Prediction for Hot Melt Extrusion by Modification of Gordon-Taylor Equation. The New Jersey Association of Pharmaceutical Sciences and Technology Annual Scholarship Meeting, East Hanover, NJ

56. May 1, 2014
    S. Gumaste, S.S. Gupta and A. T. M. Serajuddin. **Construction of Solid Dispersion Ternary Phase Diagram by Film Casting.** The 2014 AAPS-NERDG Annual Meeting, Farmington, CT

57. May 1, 2014
    S. S. Gupta and A. T. M. Serajuddin. **Application of Rheology to Melt Extrusion: Effect of Product and Process Parameters.** The 2014 AAPS-NERDG Annual Meeting, Farmington, CT

58. May 1, 2014
    S. Monir, S.S. Gupta and A. T. M. Serajuddin. **Dissolution and Dispersion Testing of Ritonavir Solid Dispersions Prepared by Melt Extrusion.** The 2014 AAPS-NERDG Annual Meeting, Farmington, CT

59. May 1, 2014

K. Sorathiya, P. Thool, H. Prajapati, D. Dalrymple and A. T. M. Serajuddin**. Effects of Different Surfactants on Microemulsion Formation by Medium Chain Lipids.** The 2014 AAPS-NERDG Annual Meeting, Farmington, CT

60. May 1, 2014
    K. Sorathiya, Prajwal Thool, D. Dalrymple, M. Culver and A. T. M. Serajuddin**. Determination of Solubility of Nutraceuticals in Lipids, Surfactant and Lipid-based Formulation.** The 2014 AAPS-NERDG Annual Meeting, Farmington, CT

61. May 1, 2014
    N. Penumaka and A. T. M. Serajuddin**. Phase Analysis and Rheological Testing in Development of Ritonavir Solid Dispersion by Hot Melt Extrusion.** The 2014 AAPS-NERDG Annual Meeting, Farmington, CT

62. November 9-14, 2013
    S. Singh Gupta, S. Gumaste, N. Mahajan, I. Vitez, T. Parikh, A. Meena and A. T. M. Serajuddin. **Effect of Presence of Drugs on Viscoelastic Properties and Melt Extrusion of Soluplus, a Graft Copolymer.** Presented at the AAPS Annual Meeting, San Antonio, TX.

63. November 9-14, 2013
    S. Singh Gupta, S. Gumaste, N. Mahajan, I. Vitez and A. T. M. Serajuddin. **Application of polymer-surfactant-drug phase diagram to melt extrusion.** Presented at the AAPS Annual Meeting, San Antonio, TX.

64. November 9-14, 2013
    T. Parikh, S. Singh Gupta, A. Meena and A. T. M. Serajuddin. **Application of film casting technique to predict drug polymer miscibility and physical stability of hot melt extrudates.** Presented at the AAPS Annual Meeting, San Antonio, TX.

65. November 9-14, 2013
    T. Parikh and A. T. M. Serajuddin. **Development of amorphous solid dispersion of itraconazole using weak organic acids.** Presented at the AAPS Annual Meeting, San Antonio, TX.

66. November 9-14, 2013
    A. Meena, T. Parikh, S. Singh Gupta and A. T. M. Serajuddin. **Thermal and viscoelastic properties of polymers relevant to hot melt extrusion.** Presented at the AAPS Annual Meeting, San Antonio, TX.

67. July 21-24 2013
    S. Singh Gupta, T. Parikh, A. Meena and A. T.M. Serajuddin. **Effect of Drug Concentration and Processing Temperature on Extrudability and Miscibility of Solid Dispersions by Hot Melt Extrusion.** Presented to Controlled Release Society Annual Meeting, Honolulu, Hawaii.

68. May 17, 2013.
    S. Singh Gupta, A. Meena, T. Parikh, A. T. M. Serajuddin. **Effect of Presence of Drugs on Viscoelastic Properties and Extrudability of Soluplus®, a Graft Copolymer.** Presented to the Annual Scholarship Meeting of New Jersey Association of Pharmaceutical Scientists (NJPhAST), Parsippany, NJ. Winner of the student award (one of the top four).

69. May 17, 2013.
    S. Singh Gupta, A. Meena, T. Parikh, A. T. M. Serajuddin. Thermal and viscoelastic properties of selected polymers. Presented to the Annual Scholarship Meeting of New Jersey Association of Pharmaceutical Scientists (NJPhAST), Parsippany, NJ.

70. April 29-30, 2013
    A. Meena, T. Parikh, S. Singh Gupta, A. T. M. Serajuddin. **Thermal and viscoelastic properties of polymers relevant to hot melt extrusion.** Presented at ExcipientFest, the Annual Meeting of the Pharmaceutical Excipients Council (IPEC), Baltimore, MD

71. April 19, 2013
    T. Parikh, S. Singh Gupta, A. Meena, A. T. M. Serajuddin. **Application of film casting technique to predict drug polymer miscibility and physical stability of hot melt extrudates.** Presented at the AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Rocky Hill, CT.

72. April 19, 2013
    S. Singh Gupta, T. Parikh, A. Meena, A. T. M. Serajuddin. **Effect of Presence of Drugs on Viscoelastic Properties and Extrudability of Soluplus®, a Graft Copolymer**. Presented at the AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Rocky Hill, CT.

73. October 14 – 18, 2012
    S. Singh, T. Parikh, H.K. Sandhu, N.H. Shah, A.W. Malick, D. Singhal, A.T.M. Serajuddin, **Supersolubilization and Amorphization of a Model Basic Drug Haloperidol by Interaction with Weak Acids.** Presented at the AAPS Annual Meeting, Chicago, IL.

74. October 14 – 18, 2012
    S. Muntazim, A. Shah, S.U. Ahmed, A.T.M. Serajuddin. **Dissolution Enhancement of Ziprasidone HCl by Melt Extrusion.** Presented at the AAPS Annual Meeting, Chicago, IL.

75. October 14 – 18, 2012
    S. Gumaste, D.M. Dalrymple, A.T.M. Serajuddin. **Development of Lipid Based Self-Emulsifying Tablets with Neusilin® US2.** Presented at the AAPS Annual Meeting, Chicago, IL.

76. May 2012
    S. Gumaste, D.M. Dalrymple, A. T. M. Serajuddin. **'Investigation of Compaction and Drug Release properties of Tablets Prepared by Adsorbing Self Emulsifying Delivery Systems onto Mesoporous Silica Neusilin® US2'.** Presented to the Annual Scholarship Meeting of New Jersey Association of Pharmaceutical Scientists (NJPhAST), Parsippany, NJ.
    Received Award as one of the top 4 poster presentations.

77. April 2012
    S. Gumaste, D.M. Dalrymple, A. T. M. Serajuddin. **Development of Solid Dosage Form of Lipid-based Self-emulsifying Drug Delivery Systems with Optimal Tablet Hardness and Adequate Drug Release by Adsorption of Liquids onto Magnesium Aluminometasilicate (Neusilin® US2).** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Rocky Hill, CT.

78. April 2012

N. Patel, H. N. Prajapati, D. Dalrymple, A. T. M. Serajuddin **Development of Solid SEDDS using Lauroyl- and Stearoyl - polyoxylglycerides as Solidifying Agents for Liquid Self-Emulsifying Formulations of Triglycerides.** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Rocky Hill, CT.

79. April 2012

A. Shah, A. T. M. Serajuddin. **Development of Solid Self-Emulsifying Drug Delivery System (SEDDS) I: Use of Poloxamer 188 as Both Solidifying and Emulsifying Agent for Lipids.** AAPS Workshop on Lipid-based Delivery for Improving Drug Absorption: Mechanistic Understanding and Practical Approaches, Baltimore, MD.

80. April 2012

N. Patel, H. N. Prajapati, D. Dalrymple, A. T. M. Serajuddin. **Development of Solid Self-Emulsifying Drug Delivery System (SEDDS), II: Use of Lauroyl- and Stearoyl - polyoxylglycerides as Solidifying Agents for Liquid Self-Emulsifying Formulations of Triglycerides.** AAPS Workshop on Lipid-based Delivery for Improving Drug Absorption: Mechanistic Understanding and Practical Approaches, Baltimore, MD.

81. April 2012

H. N. Prajapati, D. Patel, D. Dalrymple, A. T. M. Serajuddin. **Comparative Effects of Medium-chain Monoglyceride, Diglyceride and Triglyceride on Dispersion of a Model Poorly Water-soluble Drug, Probucol, in Aqueous Medium from Solutions in Lipid-Surfactant Mixtures.** AAPS Workshop on Lipid-based Delivery for Improving Drug Absorption: Mechanistic Understanding and Practical Approaches, Baltimore, MD.

82. October 2011

N. Patel, D. M. Dalrymple, **A. T. M. Serajuddin**. **Formulation and Characterization of Solid Microemulsion Preconcentrate System for Medium Chain Triglyceride Using Lauroyl Macrogolglycerides as Solidifying agents**, National Meeting of the American Association of Pharmaceutical Scientists (AAPS), Washington DC Convention Center, Washington, DC.

83. May 19, 2011

N. Patel, D. M. Dalrymple, **A. T. M. Serajuddin**. ***Formulation and Characterization of a Novel Solid Microemulsion Preconcentrate System for Application in Pharmaceutical Dosage form Development***. Presented to the Annual Scholarship Meeting of New Jersey Association of Pharmaceutical Scientists (NJPhAST), Parsippany, NJ. **Received Award as one of the top 4 poster presentations**.

84. April 2011

H. Prajapati, D. Dalrymple, **A. T. M. Serajuddin**. ***A Comparative Evaluation of Mono-, Di- and Triglyceride of Medium Chain Fatty Acids by Lipid/Surfactant/Water Phase Diagram, Solubility Determination and Dispersion Testing for Application in Pharmaceutical Dosage Form Development.*** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Rocky Hill, CT. **Won third prize in the student poster competition;** students from 7 colleges of pharmacy from New York, Connecticut, Rhode Island and Massachusetts competed.

85. April 2011

A. Shah, **A. T. M. Serajuddin.** ***Development of Solid Self-Emulsifying Lipid-Based Drug Delivery System Using Poloxamer188, a Non-Ionic Block Copolymer, as Solidifying Agent.*** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Rocky Hill, CT.

86. April 2011

H. Prajapati, D. Patel, N. Patel, D. Dalrymple, **A. T. M. Serajuddin**. ***Investigate Effect of The Fatty Acid Chain Length on Lipid-Surfactant–Water Phase Diagram For Application in Pharmaceutical Dosage Form Development.*** AAPS Northeast Regional Discussion Group (NERDG) Annual Meeting, Rocky Hill, CT.

87. November 2010

A. Shah, **A. T. M. Serajuddin.** ***Development of a Solid Microemulsion Preconcentrate by using a Non-ionic Block Copolymer as the Solidifying Agent.*** AAPS Annual Meeting, New Orleans, LA.

88. November 2010

D. Patel, **A. T. M. Serajuddin.** ***A Comparative Evaluation of Propylene Glycol Monoester, Propylene Glycol Diester and Glycerol Triester of Medium Chain Fatty Acids for Development of Lipid-based Drug Delivery System.*** AAPS Annual Meeting, New Orleans, LA.

89. November 2010

H. Prajapati, D. M. Dalrymple, **A. T. M. Serajuddin**. ***Systematic Study of Effects of Mono-, Di- and Tri-Glycerides of Medium Chain Fatty Acids on Development of Lipid-based Drug Delivery Systems.*** AAPS Annual Meeting, New Orleans, LA.

90. November 2010

H. Prajapati, D. Patel, N. Patel, D. M. Dalrymple, **A. T. M. Serajuddin.** ***Effect of Fatty Acid Chain Length in Propylene Glycol Mono- and Di-ester Lipids on Micro- and Nano-emulsion Formation and Drug Solubility.*** AAPS Annual Meeting, New Orleans, LA.

91. May 2010

A. Shah, **A. T. M. Serajuddin**. ***Development of Solid Self-Emulsifying Lipid-Based Drug Delivery Systems Using Poloxamer 188, a Non-Ionic Block Copolymer, as Solidifying Agent.*** Presented to the Annual Scholarship Meeting of New Jersey Association of Pharmaceutical Scientists (NJPhAST), Parsippany, NJ.

92. May 19, 2010

H. N. Prajapati, D. M. Dalrymple, **A. T. M. Serajuddin**. ***Systematic Study of Effects of Mono-, Di- and Tri-Glycerides of Medium Chain Fatty Acids on Development of Lipid-based Drug Delivery Systems.*** Presented to the Annual Scholarship Meeting of New Jersey Association of Pharmaceutical Scientists (NJPhAST), Parsippany, NJ. Received Award as one of the top 4 presentations.

93. May 2010

D. Patel, **A. T. M. Serajuddin**. ***Characterization of Medium Chain Fatty Acids for Nanoemulsion Formation and Drug Solubility II: Comparative Study of Propylene Glycol Mono and Di-esters and Glyceryl Triesters***. Presented to the Annual Scholarship Meeting of New Jersey Association of Pharmaceutical Scientists (NJPhAST), Parsippany, NJ.

94. June 2007

R-M. Dannenfelser, H. He, P. Li, M. Pudipeddi, Y.M. Joshi, **A.T.M. Serajuddin**. ***Development of Clinical Dosage Forms for a Poorly Water-Soluble Drug II: Comparative Evaluation of Solid Dispersion, Solid Microemulsion Preconcentrate and Lipid-based Formulations***. Controlled Release Society Annual Meeting, Long Beach, CA.

95. June 2007

P. Li, M. Pudipeddi, S.R. Hynes, A.E. Royce, Y.M. Joshi, **A.T.M. Serajuddin**. ***Development and Characterization of a Solid Microemulsion Preconcentrate System for Oral Delivery of Poorly Water Soluble Drugs***. Controlled Release Society Annual Meeting, Long Beach, CA.

96. June 2007

M. Vasanthavada, H. Xi, V. Georgousis, W. Tong, **A.T.M. Serajuddin**. ***Acidified Solid Dispersions to Modify Release Rates of Weak Bases***. Controlled Release Society Annual Meeting, Long Beach, CA.

97. October 2003

M. Pudipeddi, E. A. Zannou, A. Dontabhaktuni, B. Wei, A. Royce, Y. Joshi, and **A.T.M. Serajuddin,** ***Experimental Determination of Microenvironmental pH of Pharmaceutical Solids***, AAPS Annual Meeting, Salt Lake City, UT.

98. October 2003

S. Li, S. Metz, B. Wei, A. Royce, and **A.T.M. Serajuddin,** ***Effect of Chloride Ion on Dissolution of Different Forms of a Basic Drug***, AAPS Annual Meeting, Salt Lake City, UT.

99. October 2003

P. Li, R. Wagner, H. Lee, A. Ghosh, M. Kabir, and **A.T.M. Serajuddin**, ***Evaluating Self-Microemulsifying Drug Delivery Systems (SMEDDS) for Poorly Water-Soluble Drugs.*** AAPS Annual Meeting, Salt Lake City, UT.

100. November 2002

P. Li, J. Holinej, R. Wagner, A. Ghosh, **A.T.M. Serajuddin**, S. Krill, and Y. Joshi. ***Effect of Non-Ionic Surfactant Combinations on Oil-in-Water Microemulsions.*** AAPS Annual Meeting, Toronto, Canada.

101. April 2002

M. Vasanthavada, M. Pudipeddi, A. Royce, B. Wei, Y. Joshi and **A.T.M. Serajuddin**. ***Experimental Determination of Microenvironmental pH of Pharmaceutical Solids.*** AAPS Pharmaceutics and Drug Delivery Conference, Arlington, Va. **Winner of the Outstanding Poster Award.**

102. April 2002

S-M. Wong, S. Li, S. Sethia, H. Almoazen, S. Metz, Y. Joshi, and **A.T.M. Serajuddin**. ***Effect of Salt Forms and Diffusion Layer pH on Dissolution of a Basic Drug.*** AAPS Pharmaceutics and Drug Delivery Conference, Arlington, VA.

103. October 2001

R. M. Dannenfelser, **A. T. M. Serajuddin**, Y. Joshi, H. He, and S. Bateman. ***Early Formulation Development of a Poorly Water-Soluble Compound Utilizing a Polyethylene Glycol-Polysorbate 80 Solid Dispersion System to Enhance its Bioavailability.*** American Association of Pharmaceutical Scientists, Denver, CO. (Abstract published in AAPS PharmSci 2001).

104. October 2000
H.N. Joshi, M. Davidovich, R. Tejwani, V.P. Sahasrabudhe, M.S. Bathala, M. Jemal, S. Varia, and **A.T.M. Serajuddin.** ***Polyethylene Glycol-Polysorbate 80 Solid Dispersion to Improve Bioavailability of a Water-Insoluble Drug.*** American Association of Pharmaceutical Scientists, Indianapolis, IN. (Abstract published in AAPS PharmSci 2000).

105. November 1999
R.W. Tejwani, H.N. Joshi, S.A. Varia, and **A.T.M. Serajuddin.** ***Phase Behavior of Polyethylene Glycol-Polysorbate 80 Mixtures and its Dependence on Molecular Weight of Polyethylene Glycol.*** American Association of Pharmaceutical Scientists, New Orleans, LA (Abstract: AAPS PharmSci 1999, 1(4), S-549).

106. November 1998
S. Venkatesh, J. Tank, T. Rider, and **A.T.M. Serajuddin.** ***Degradation of BMS-194449 in the Amorphous Solid State.*** American Association of Pharmaceutical Scientists, San Francisco, CA (Abstract: AAPS PharmSci 1998, 1(1), S-401).

107. November 1997
M.G. Fakes, T.A. Haby, K.R. Morris, S.A. Varia, and **A.T.M. Serajuddin.** ***Moisture Sorption Behavior of Selected Bulking Agents Used in Lyophilized Products.*** American Association of Pharmaceutical Scientists, Boston, MA (Abstract: Pharm. Res. 1997, 14, S-295).

108. November 1997
A. Lakkaraju, H.N. Joshi, S.A. Varia, and **A.T.M. Serajuddin.** ***pH-Solubility Relationship of Avitriptan, a Dibasic Compound, as a Function of Counterion.*** American Association of Pharmaceutical Scientists, Boston, MA (Abstract: Pharm. Res. 1997, 14, S-228).

109. November 1997
A.T.M. Serajuddin. ***Education in Pharmaceutical Sciences Needs a Brand New Direction to Meet the Challenges of Drug Research and Development.*** American Association of Pharmaceutical Scientists, Boston, MA (Abstract: Pharm. Res. 1997, 14, S-172).

110. November 1994
A.B. Thakur, X. Chen, D.E. Bugay, and **A.T.M. Serajuddin.** ***Solid State Incompatibility of Dicalcium Phosphate Dihydrate with the Sodium Salt of a Poorly Water Soluble Drug.*** American Association of Pharmaceutical Scientists, San Diego, CA (Abstract: Pharm. Res. 1994, 11, S-166).

111. November 1991
K.R. Morris, K.L. Amsberry, Z. Wang, and **A.T.M. Serajuddin.** ***Some Pharmaceutical Applications of Laser Light Scattering.*** American Association of Pharmaceutical Scientists, Washington, DC.

112. November 1991
K.R. Morris, A.W. Newman, D.E. Bugay, S.A. Ranadive, M. Szyper, S.A. Varia, H.G. Brittain, and **A.T.M. Serajuddin.** ***Humidity-Dependent Changes in Crystalline Properties of an Organic Hydrate in Bulk Material and in Solid Dosage Forms.*** American Association of Pharmaceutical Scientists, Washington, DC.

113. November 1991
A.T.M. Serajuddin, A.B. Thakur, R.N. Ghoshal, S.A. Ranadive, G.T. Knipp, M.G. Fakes, and K.R. Morris. ***Drug-Excipient Compatibility Screening: A Practical Model.*** American Association of Pharmaceutical Scientists, Washington, DC.

114. November 1990
S.A. Ranadive, O.T. Huynh, D.A. Wadke, and **A.T.M. Serajuddin.** ***Acid-Catalyzed Isomerization of Pravastatin.*** American Association of Pharmaceutical Scientists, Las Vegas, Nevada.

115. November 1990
A.T.M. Serajuddin. ***Factors Affecting Release of Phenytoin Sodium from Slow-Release Dosage Forms.*** American Association of Pharmaceutical Scientists, Las Vegas, Nevada.

116. October 1989
A.B. Thakur, M. Abdelnasser, **A.T.M. Serajuddin**, and D.A. Wadke. ***Interaction of Metronidazole with Antibiotics Containing 2-Aminothiazole Moiety.*** American Association of Pharmaceutical Scientists, Atlanta, GA.

117. October 1989
P.C. Sheen, **A.T.M. Serajuddin**, S.I. Kim, and J.J. Petillo. ***Human Bioavailability of a Poorly Water-Soluble Drug from Tablet and Solid Dispersion.*** American Association of Pharmaceutical Scientists, Atlanta, GA.

118. October 1989
K.R. Morris, G.T. Knipp, and **A.T.M. Serajuddin.** ***Structural Properties of Polyethylene Glycol and Polysorbate 80 Mixture, a Novel Solid Dispersion Vehicle.*** American Association of Pharmaceutical Scientists, Atlanta, GA.

119. October 1989
A.T.M. Serajuddin, S.A. Ranadive, D.L. Ballesteros, A.B. Thakur, and D.A. Wadke. ***Effects of Electrolytes on Solubility and Partition Coefficient of Fosinopril Sodium.*** American Association of Pharmaceutical Scientists, Atlanta, GA.

120. October 1989
S.A. Ranadive, A.X. Chen, **A.T.M. Serajuddin**, and D.A. Wadke. ***Relative Lipophilicities of Various Angiotensin-Converting Enzyme (ACE) Inhibitors.*** American Association of Pharmaceutical Scientists, Atlanta, GA.

121. October 1989

A.T.M. Serajuddin, S.A. Ranadive, O.T. Huynh, E.M. Mahoney, and D.A. Wadke. ***Relative Lipophilicities and Solubilities of HMG-CoA Reductase Inhibitors Pravastatin, Lovastatin, Mevastatin and Simvastatin.*** American Association of Pharmaceutical Scientists, Atlanta, GA.

122. October 1989
K. R. Morris, D.E. Bugay, **A.T.M. Serajuddin**, H.G. Brittain, A.B. Thakur, S. Bogdanowich, and J. DeVincentis. ***Investigation of Polymorphism of Fosinopril Sodium, A New ACE Inhibitor.*** American Association of Pharmaceutical Scientists, Atlanta, GA.

123. October 1988
S.A. Ranadive, **A.T.M. Serajuddin**, B. Kelly, S. Ng, and E.M. Cohen. ***Effect of Ethanol on Diffusion of Nadolol Across Human Cadaver Skin from a Monolithic Membrane.*** American Association of Pharmaceutical Scientists, Orlando, FL.

124. October 1988
S. Varia, M. Faustino, **A.T.M. Serajuddin**, C. Clow, and E. Cohen. ***Development of a Lotion Formulation for Tipredane, a Novel Corticosteroid. II. Preformulation Studies.*** American Association of Pharmaceutical Scientists, Orlando, FL.

125. October 1988
S. Varia, M. Faustino, **A.T.M. Serajuddin**, C. Clow, and E. Cohen. ***Development of a Lotion Formulation for Tipredane, a Novel Corticosteroid. I. Optimization Studies.*** American Association of Pharmaceutical Scientists, Orlando, FL.

126. June 1987
A.T.M. Serajuddin, P.C. Sheen and M.A. Augustine. ***Evaluation of Mixtures of Polyethylene Glycol and Polysorbate 80 as Vehicles for Solid Dispersions of a Poorly Water-Soluble Drug.*** American Association of Pharmaceuticals Scientists, Boston, MA.

127. March 1986
A.T.M. Serajuddin, P.C. Sheen, and M.A. Augustine. ***Enhanced Bioavailability of a Poorly Water-Soluble Drug via Conversion to an Emulsified Metastable Liquid Form.*** Academy of Pharmaceutical Sciences, San Francisco, CA.

128. March 1986
A.T.M. Serajuddin, P.C. Sheen, and M.A. Augustine. ***Enhanced Bioavailability of a Poorly Water-Soluble Drug by Solid Dispersion in an Amphiphilic Vehicle.*** Academy of Pharmaceutical Sciences, San Francisco, CA.

129. November 1985
A.T.M. Serajuddin, P.C. Sheen, and M.A. Augustine. ***Water Migration from Soft Gelatin Capsule Shell to Fill Material and its Effect on Drug Solubility.*** Academy of Pharmaceutical Sciences, Minneapolis, MN.

130. September 1985
A.T.M. Serajuddin, P.C. Sheen, D. Bernstein, D. Mufson, and M.A. Augustine. ***Physicochemical Properties of Base and Hydrochloride Salt Forms of REV 5901, a Poorly Water-Soluble Drug:***

Selection of Base for Dosage Form Design. International Congress of Pharmaceutical Sciences of F.I.P., Montreal, Canada.

131. October 1984
K.S. Chang, **A.T.M. Serajuddin**, and C.I. Jarowski. ***Oral Absorption Efficiency of Sodium Phenytoin Pellets in Sprague Dawley Rats.*** Academy of Pharmaceutical Sciences, Philadelphia, PA.

132. October 1984
A.T.M. Serajuddin. ***Physicochemical Properties of Sodium Theophylline: Solubility and Thermal Behavior.*** Academy of Pharmaceutical Sciences, Philadelphia, PA.

133. August 1984
A.T.M. Serajuddin. ***Slow-Release Phenytoin Sodium Formulations: Physicochemical and Biopharmaceutical Factors, The Controlled Release Society***. Fort Lauderdale, FL.

134. November 1983
A.T.M. Serajuddin and C.I. Jarowski. ***Effect of Diffusion Layer pH and Solubility on the Dissolution Rate of Pharmaceutical Acids and their Sodium Salts, II: Benzoic Acid.*** Academy of Pharmaceutical Sciences, Miami Beach, FL.

135. November 1983
A.T.M. Serajuddin and C.I. Jarowski. ***Effect of Diffusion Layer pH and Solubility on the Dissolution Rate of Pharmaceutical Acids and their Sodium Salts, I: Salicylic Acid and Theophylline.*** Academy of Pharmaceutical Sciences, Miami Beach, FL.

136. July 1983
A.T.M. Serajuddin, M. Rosoff, and D. Mufson. ***The Effects of Microenvironmental pH and Solubility on the Release of Papaverine Hydrochloride from Sustained Release Pellets.*** Controlled Release Society, San Francisco, CA.

137. November 1982
A.T.M. Serajuddin and C.I. Jarowski. ***Effects of Diffusion Layer pH and Supersaturation on the Dissolution of Pharmaceutical Bases and their Hydrochloride Salts.*** Academy of Pharmaceutical Sciences, San Diego, CA.

138. November 1977
A.T.M. Serajuddin and M. Rosoff. ***Intestinal Absorption of a Poorly Water-Soluble Drug from Bile Salt-Lipolytic Products Mixed Micellar Solutions in Rats.*** Academy of Pharmaceutical Sciences, Phoenix, Arizona.